

A SEMI-MONTHLY JOURNAL.

ESTABLISHED IN 1853.

# MEDICAL AND SURGICAL REPORTER.

## ORIGINAL ARTICLES.

F. R. MILLARD, M.D. Some of the Uses of Apocynum Cannabinum.....	98
THOMAS H. MANLEY, M.D. Brief Notes on Conservative Therapy in the Treatment of Tubercles.....	95
WALTER H. PARCELS, M.D. Three Complicated Dislocations.....	100
A. F. MYERS, M.D. Expulsion of the Ovum Entire.....	102

## CONTEMPORARY REVIEW.

Ablation of the Ovary.....	103
Massage in the Various Diseases of the Female Genital Organs.....	103
Unification of State Medical Examinations and Licenses.....	104
Treatment of Gastric Ulcer.....	105
Hospital Abuses.....	105
Intestinal Autointoxication.....	105
Treatment of Cancer by Interstitial Injections of Alcohol.....	106
Gangrene of Leg in an Infant Four Weeks Old, with Amputa- tion and Recovery.....	108
Affections of the Conjunctive and Cornea Observed in the Acute Infectious Diseases of Children.....	108

A Clinical Method for the Estimation of Breast-milk Proteids.....	108
Nature and Treatment of Obesity.....	108
Occupational Mortality.....	109
How Shall an Infant be Nourished Whose Father is Syphilitic?.....	111

## EDITORIAL.

Asepsis or Antiseptics.....	112
-----------------------------	-----

## ABSTRACT.

Lacerated and Punctured Wounds of the Genital Tract.....	114
The Early Diagnosis of Progressive Paresis.....	120

## FORMULÆ.

Philadelphia Pediatric Society.....	131
-------------------------------------	-----

## SOCIETY REPORTS.

Philadelphia Pediatric Society.....	132
-------------------------------------	-----

## PERISCOPE.

Medicine.....	133
Gynecology.....	133
Obstetrics.....	134
Therapeutics.....	135
News and Miscellany.....	136

ARSENIC is **GOOD.**  
ARSENIC WITH GOLD is **BETTER.**  
ARSENAURO is **BEST.**

Arsenauro is not a mixture.  
It is a definite chemical  
product, being a double bromide  
of gold and arsenic.

CHAS ROOME PARMELE CO., NEW YORK

When writing to advertisers, mention "MEDICAL AND SURGICAL REPORTER."

# SYR. HYPOPHOS. CO., FELLOWS

**CONTAINS THE ESSENTIAL ELEMENTS** of the Animal Organization—Potash and Lime;

**THE OXIDIZING AGENTS**—Iron and Manganese;

**THE TONICS**—Quinine and Strychnine;

**AND THE VITALIZING CONSTITUENT**—Phosphorus; the whole combined in the form of a Syrup with a **SLIGHTLY ALKALINE REACTION**.

**IT DIFFERS IN ITS EFFECTS FROM ALL ANALOGOUS PREPARATIONS**, and it possesses the important properties of being pleasant to the taste, easily borne by the stomach, and harmless under prolonged use.

**IT HAS GAINED A WIDE REPUTATION**, particularly in the treatment of Pulmonary Tuberculosis, Chronic Bronchitis, and other affections of the respiratory organs. It has also been employed with much success in various nervous and debilitating diseases.

**ITS CURATIVE POWER** is largely attributable to its stimulant, tonic and nutritive properties, by means of which the energy of the system is recruited.

**ITS ACTION IS PROMPT**, it stimulates the appetite and the digestion, it promotes assimilation, and it enters thoroughly into the circulation with the food products.

Prescribed dose produces a feeling of buoyancy, and removes depression and melancholy; *hence the preparation is of great value in the treatment of mental and nervous affections.* From the fact, also, that it exerts a double tonic influence, and induces a healthy flow of the secretions, its use is indicated in a wide range of diseases.

MEDICAL LETTERS MAY BE ADDRESSED TO

**MR. FELLOWS, No. 48 Vesey Street, New York.**

CELERINA not only removes fatigue of both brain and body, but it is also of the greatest service to singers and speakers, for, whilst bracing the nerves, it strengthens the voice.

A sample bottle will be sent free to any physician who desires to test it, if he will pay the express charges.

RIO CHEMICAL CO., St. Louis, Mo., U. S. A.

When writing to advertisers, mention "MEDICAL AND SURGICAL REPORTER."

After sickness and during Spring house-cleaning, Platt's Chlorides should be sprinkled freely over the floors and allowed to dry before carpets are relaid.

As each board retains some Chlorides, a lasting purifying effect is obtained and the ravages of insects prevented.

**DIRECTIONS FOR USE:**—Mix in a bowl 1 part of Platt's Chlorides with 4 parts of water and sprinkle with a whisk-broom.



# ***Platt's Chlorides,***

## ***The True Disinfectant.***

An odorless, colorless liquid; powerful, safe and cheap; sold in quart bottles only, by druggists everywhere; prepared only by Henry B. Platt, Platt St., New York.

## **SCHERING'S FORMALIN DISINFECTANT AND DEODORIZING LAMP.**



A perfected and most convenient apparatus, in which dry Formalin (Paraform) pastils, containing 100 per cent. pure formaldehyde, are vaporized over an alcohol flame. Every 1 gramme pastil develops 1 gramme of pure formaldehyde gas, the equivalent of 2½ grammes of the 40 per cent. fluid formalin.

UNSURPASSED IN EFFECTIVENESS AND SIMPLICITY. ABSOLUTELY SAFE AND INEXPENSIVE. A NECESSITY FOR THE PHYSICIAN AND FOR EVERY HOUSEHOLD. Recommended by medical authorities after thorough bacteriological and clinical trial.

Dr. A. B. Griffiths, of London, has proved that 10 pastils of 1 gramme dry Formalin (Paraform) in a room capacity of 1,000 cubic feet, vaporized by Schering's Lamp, will kill staphylococcus pyogenes aureus, diphtheria bacilli, and all other micro-organisms, both in the wet and dried on glass slips when lying or suspended about the room, and even when enveloped in several thicknesses of flannel, cotton or silk stuffs.

Dr. H. Aronson, of Berlin, on the other hand, has conclusively shown that 66 to 70 pastils in a room capacity of 1,000 cubic feet, or seven times the quantity necessary to kill micro-organisms, will not injuriously affect the human respiratory organs.

The formalin pastils are entirely harmless if accidentally swallowed.

## **EUCAINE HYDROCHLORATE A**

has acquired a substantial hold on the confidence of the medical profession during the past year, owing to the fact that it possesses the same powerful anesthetic effect as cocaine, without its dangerous features. Thorough clinical and experimental investigation of Professors Liebreich, Scognamiglio, Charteris and others have proven that EUCAINE A is really much less toxic than cocaine. Almost every surgeon and dentist, after using the Eucaine, has reached the conclusion that it is the best local anesthetic before the profession.

**SCHERING'S** DIPHTHERIA ANTITOXIN  
EUCAINE HYDROCHLORATE B  
FORMALIN

GLUTOL—DR. SCHLEICH  
GLYCERO-PHOSPHATES  
UROTRAPIN

**SCHERING & GLATZ, No. 55 Maiden Lane, New York,**

Literature Furnished on application.

Sole Agents for the United States.

When writing to advertisers, mention "MEDICAL AND SURGICAL REPORTER."

### Something for the Modern Teacher to Think of.

Children pass through stages when, while they may really be taking in much, they appear absolutely to have no power to give out anything; and for these stages education, as we commonly have it, makes no provision. The most intelligent teacher is apt to lose patience with what looks like stupidity or sloth; and, in any case, the teaching progresses in the customary order, with a constant pressure on the pupil for proofs of visible acquisition, regardless of whether the internal forces are intent upon other, and, at the instant, more imperative functional duties or no.

It is true that some children have more of these absorbent periods, and longer ones, than others; but it is also true that these eventually do not prove to be the dullest children, but often the reverse. In conclusion of the whole matter what one would like to have answered is this: Are times of this sort, in which it seems impossible for the brain to discharge, or even to acquire, anything of value, to be considered as part of the inevitable constitution of things, something no more to be fought against than the farmer can fight with his fields because they must lie periodically fallow if they are to bear good crops; or can

education, thanks to the newer and more enlightened recognition of mind-stages in which all growth goes on below the surface, so treat these stages in childhood that they will be less troublesome in later years? Do the semi-comatose mental periods come within the physician's jurisdiction—are they matters of bile or lymph, liver or spleen—or will future teachers reach them? Are they physical wholly, or also psychic? We know of instances, surely, where they have been triumphantly forced off, during a brilliant childhood and adolescence, by intensive instructors and a stimulative educational régime; and where, also, the pupil thereafter collapsed into insignificance, showing no power further of any sort, much less the enviable power that is ever available, in hand, ready for use.—From "The Point of View," in March *Scribner's*.

**Turpentin in Scarlet Fever.**—Turpentin, given hypodermically or by mouth, is said by Isidore Pujador y Fauva, to prevent nephritis in scarlet fever; it should not be used in doses greater than one gram for young children, and the digestive organs should be watched. If necessary the drug should be suspended for two days, and saline laxatives given.

## RICH RED BLOOD OR BLOOD RICHNESS

Is the main desideratum in many cases. Richness of the circulating fluid in those important basic elements of vitality—*hæmoglobin* and *oxygen*.

### Pepto-Mangan ("Gude")

INFUSES THIS DESIRABLE RICHNESS IN CASES OF  
**ANÆMIA, CHLOROSIS, AMENORRŒA, DYSMENORRŒA, RICKETS,  
BRIGHT'S DISEASE, Etc.,**

By furnishing these necessary *hæmoglobin*-making and *oxygen*-carrying elements—*Iron* and *Manganese*—in a form for almost immediate absorption. Both repeated "blood counts" and clinical experience go to prove this statement.

**PEPTO-MANGAN "GUDE"** is put up only in bottles holding 3 xl.

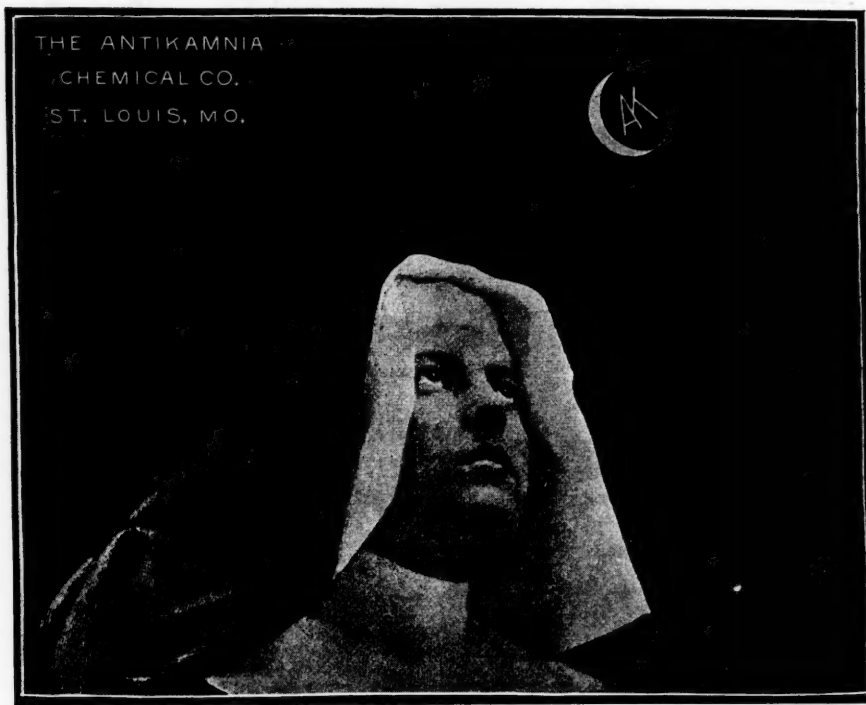
Prescribe original packages, Doctor, and thus avoid substitution. **NEVER SOLD IN BULK.**  
Samples and literature upon application.

**M. J. BREITENBACH COMPANY,** Sole Agents for U. S. and Canada,

LABORATORY,  
LEIPZIG, GERMANY.

56 & 58 WARREN ST., NEW YORK.





...ORDER...

Medical and Surgical Reporter Co., Publishers,  
P. O. Box 843, Philadelphia, Pa.,

Enclosed find remittance (\$ ) for which send for  
months, beginning ,

**The Medical and Surgical Reporter**  
TO

Name .....

P. O. Address .....

Town ....., County .....

Date .....

State .....

When writing to advertisers, mention "MEDICAL AND SURGICAL REPORTER."



AN ANTISEPTIC OF GREAT POWER

ENDORSED BY THE  
MEDICAL PROFESSION  
AS A REMEDY  
PAR EXCELLENCE  
IN THE TREATMENT  
OF DISEASES OF  
WOMEN.

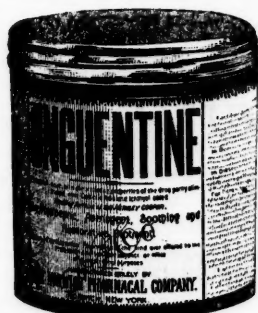
**MICAJAH'S  
MEDICATED  
UTERINE  
WAFERS**

**POSITIVE RESULTS**

ARE ATTAINED BY THE USE OF THESE WAFERS  
IN CASES OF LEUCORRHOEA, VAGINITIS, UTERINE  
INFLAMMATION, PAINFUL AND IRREGULAR MENSTRUATION,  
ETC. AND DISTURBANCES ATTENDING THE MENOPAUSE.

A copy of "HINTS ON THE TREATMENT OF DISEASES OF WOMEN"  
and samples of MICAJAH'S MEDICATED UTERINE WAFERS,  
will be sent free by mail on request to

**MICAJAH & CO. WARREN PA.**



**NORWICH, ENGLAND, 1786.**

**COOPER'S ALUM OINTMENT.**

**NORWICH, NEW YORK, 1886.**

**UNGUENTINE.**

"Very many good 'Cerates' we  
doctors have seen  
But the 'facile princeps' is Un-  
guentine."

—Dr. LeSeur.

Cooper's Alum Ointment, modernized by the addition of Sir Joseph  
Lister's sheet anchor, Carbolic Acid, together with Ichthyol and a  
Petroleum base, is Unguentine, a thoroughly antiseptic and non-irri-  
tating, astringent but soothing surgical dressing and ointment, which  
is indicated in all cases where there is inflammation.

Fourth Edition of Clinical Notes and Reports, with sample, sent upon request.

**THE NORWICH PHARMACAL CO.,**

51 JOHN ST., NEW YORK.

NORWICH, NEW YORK.

AT DRUGGISTS IN FOUR OUNCE, ONE AND FIVE POUND PACKAGES.

When writing to advertisers, mention "MEDICAL AND SURGICAL REPORTER."

## BROMIDIA

FORMULA: ***THE HYPNOTIC***

Every fluid drachm contains 15 grs. EACH of pure CHLORAL HYDRAT. and purified Brom. Pot.; and 1-8 gr. EACH of gen. imp. ex. CAMBIS IND. and HYOSCYAM.

## PAPINE

FORMULA: ***THE ANODYNE***

PAPINE is the Anodyne or pain-relieving principal of Opium, the narcotic and convulsive elements being eliminated. One fluid drachm is equal in Anodyne power to 1-6 grain of Morphine.

## IODIA

FORMULA: ***The ALTERATIVE***

IODIA is a combination of Active Principles obtained from the Green Roots of STILLINGIA, HELONIAS, SAKIFRAGA, MENISPERMUM and AROMATICS. Each fluid drachm also contains five grains Iod-Potas. and three grains PHOS-IRON.

**BATTLE & CO., Chemists' Corporation.**



# Daniel's Cont. Tinct. Passiflora Incarnata.

A Product of the May Pop, combining the rare medicinal qualities that are NATURE'S antidote to nervousness; and a POSITIVE CURE for the Opium Habit, Spasmodic Asthma, Insomnia, Delirium Tremens, Neuralgia, Epilepsy and diseases peculiar to women.

**JOHN B. DANIEL,**

Write for Literature.

**ATLANTA, GA.**

FOR SALE BY LEADING WHOLESALE DRUG FIRMS OF THE UNITED STATES.

**Take Care of Yourself.**—The Chicago Board of Health says: "By 'keeping out of the way of contagion' is meant, among other things, avoiding close contact with the one suffering with the disease. Do not sleep in the same room, still less in the same bed, with such a sufferer, and do not use any article or utensil in common with such.

"It is also certain that all kinds of excesses in living, as well as exposure and fatigue, invite attacks of disease. All observers have testified to its frequency and to its heavy mortality in the alcoholic particularly, and also in the overworked and harassed. They are further agreed that self-dosing with so-called 'influenza cures' and specifics is not only useless but positively dangerous; and that mildness of attack and speedy recovery are best insured by taking to bed at once and following the advice of a competent physician. This is of special importance to those beyond the middle life, with crippled hearts, kidneys or other vital organs."—*Meyer Bros. Druggist.*

## Too Confident.

Emergency lectures are good in their place, but a writer in the *New York Times* thinks that

some of those who attend upon them acquire very exaggerated ideas of their own consequent fitness to deal with serious cases.

The other day a woman fell in the street, and broke her arm. She was taken into a store, and the clerks ranged themselves at the door to keep the crowd out. A gentleman had helped to carry her. When she had been placed in a comfortable position, he, after cutting her sleeve from wrist to shoulder, called for some cotton, and making some splints of the thin boards upon which dress goods are rolled, prepared to set the limb.

At this moment a tall woman with eyeglasses, having with difficulty run the gauntlet of clerks at the door, pressed eagerly forward.

"You're doing that all wrong; all wrong," she said.

As the gentleman did not even turn, she continued, "Come, you must let me do that. You don't know anything about it; I have an emergency certificate."

The gentleman paused in his work, and without looking up, remarked briefly, "Pardon me, madam, but I am a surgeon."

# MELLIN'S FOOD

FOR THE **MODIFICATION OF  
FRESH COW'S MILK.**

MELLIN'S FOOD is not only readily digestible itself, but it actually assists to digest milk or other foods with which it is mixed.

G. W. WIGNER, F.I.C., F.C.S.  
President of the Society of Public Analysts, London, Eng.

**MELLIN'S FOOD FOR  
INFANTS AND INVALIDS.**

DOLIBER-GOODALE COMPANY, BOSTON, MASS.

# Maltine

**MALTINE** is not merely "malt," nor is it a mere "extract of malt," nor an "essence of malt."

**MALTINE** is the most highly concentrated extraction of all the nutritive and digestive properties of wheat, oats, and malted barley.

It has stood alone and unrivalled throughout the world in its therapeutic field for more than twenty years, despite the most strenuous efforts of the ablest pharmaceutical manufacturers to produce a preparation approaching it in medicinal value, elegance, palatability and stability.

"Malt" is not "**MALTINE**."

"Extract of Malt" is not "**MALTINE**."

"**ESSENCE** of Malt is not "**MALTINE**."

"**MALTINE**" must be designated to get "**MALTINE**."

When writing to advertisers, mention "MEDICAL AND SURGICAL REPORTER."

# MEDICAL AND SURGICAL REPORTER.

Vol. LXXVIII.  
Whole Number, 232.

APRIL 16, 1898.

New Series.  
Vol. I—No. 2.

## ORIGINAL ARTICLES.

### SOME OF THE USES OF APOCYNUM CANNABINUM.

F. R. MILLARD, M.D., SAN DIEGO, CAL.

Apocynum Cannabinum is a powerful hydragogue cathartic and in certain doses causes free emesis. It is probably safer than any other emeto-cathartic which acts with equal severity. It won official recognition as a remedy for dropsy, and at one time was much used, but the increased popularity of homeopathy, and decreased popularity of emetics with other reasons has caused it to be less frequently prescribed by regular physicians than it was forty years ago.

This is not saying that it is less frequently used. It is an ingredient in more than one proprietary heart tonic which is sold from the Atlantic to the Pacific, and is taken by more people than ever took it before.

Part of the neglect into which the drug has fallen among the profession must be laid to the manufacturing chemist, who told the doctors that if they wished to make medicine an exact science they must begin with exact dosage, discard the old antiquated galenicals and prescribe active principals. With his unlimited facilities, long experience and superior skill, he could make a part greater than the whole and he gave them apocynin. The doctor who prescribes apocynin with the hope of getting the full effect of apocynum is preordained to be disappointed.

But perhaps to Schmiedeberg, who, after elaborate investigation, declared that it acted on the heart like digitalin, only weaker, most blame must be laid. The average doctor said, "We have the powerful heart tonics, cactus, caffeine, digitalis and strophanthus, and have no need for the weak apocynum." Had Schmiedeberg said it acted on the capillaries like nitroglycerin, only weaker, it would have been just as true, and yet both together would not have been the whole truth.

Like digitalis, it is a heart tonic, but unlike digitalis, it is never dangerous, and unlike digitalis, it does not destroy the appetite, but gives the stomach all the benefit of a bitter tonic. Nitroglycerin is essentially an emergency remedy and to secure and maintain its full effect must be repeated every thirty or sixty minutes. Not that all the benefit of a dose is exhausted in an hour,

for during the time it is acting it is possible for the heart to accumulate a supply of reserve power which may be used to maintain the circulation after the nitroglycerin ceases to act. The relief from work the heart gets from a single dose is greater than from a dose of apocynum, but the full effect of apocynum can be maintained by repeating it every four or six hours, and the heart be relieved of a greater aggregate amount of work than by repeating the nitroglycerin four times a day. For hospital patients nitroglycerin may be best, but it is not best for ambulatory cases, who often need a similarly acting drug.

Some thirty years ago a doctor, whose name I do not now recall, published an account of the benefit he had obtained from apocynum. A mitral lesion compelled him to quit practice, but after taking apocynum for a few months he resumed work, and for six or seven years had done a fairly large general practice. Since then a number of physicians have published similar testimony, but it still remains a much neglected drug.

Its greatest field of usefulness is in cases of cardiac weakness. There may be two periods in the life of the same patient when apocynum is indicated. The first may be at a comparatively short time after the valvular lesion is acquired when complete compensation is possible but is not consummated. Then the patient should be given strychnin and apocynum. Begin with about one-thirty-second grain of strychnin and increase rather rapidly to one-sixteenth, or one-twelfth grain three times a day, and continue the strychnin until compensation is complete. It is generally advisable after having given one-twelfth grain doses for a few days, to gradually reduce the dose to one-thirty-second grain and then to increase to one-twelfth grain again.

The apocynum should be given in amount that does not cause discomfort. This amount is more variable among patients than is the amount of strychnin. It should be continued from three to six months after stopping the strychnin.

Compensation secured in this manner is more permanent than when obtained in any other way. It is true that complete compensation can be obtained quicker with digitalis than with apocynum, but it is at the expense of durability. The

property that digitalis has of increasing arterial tension necessarily induces an excess of hypertrophy above what would be called for if tension was not increased, and this excess hastens the time when dilatation must outrun hypertrophy and from that time onward the patient is daily reminded of the fact that he has a heart.

The longest period during which compensation obtained with apocynum and strychnin has held complete among my patients was thirty-eight years, during which period the man worked at his trade of house carpenter and contractor, and when complete compensation failed he said that he had not been too ill to work from any cause more than two or three days at a time since he was cured of the dropsy and the area of cardiac dullness was little if any greater than it was when treatment was discontinued.

The same is true of other patients whose compensation is still complete from ten to thirty-five years after treatment.

I have yet to examine a patient twenty-five years after compensation was secured with digitalis in whom the area of cardiac dullness was not very notably increased. So far as my observation extends, complete compensation so got rarely lasts twenty-five years. No matter how it is got, during childhood or after middle age, it cannot be expected to hold complete for such long periods.

Formerly the advice given to patients when compensation was secured, was to live hygienically and avoid all unnecessary medication. Of late years the suspicion has been growing on me that perhaps my zeal in that direction was not according to knowledge, and that proper medication, though apparently uncalled for, might be beneficial.

I started in to test the question whether apocynum would prevent, or materially postpone the ultimate failure of complete compensation. To every man who lives long enough there comes a time when he must leave others to do many things he would very much like to do himself.

What I proposed was, remembering that "a man is just as old as his arteries are," to begin while the arteries were sound and compensation still complete, and, three or four times a year give the patient a month's treatment with apocynum. The small number of cases, and the few years they have been so treated prevents me from forming a positive conclusion, and I hope some younger doctor who has that rare gift, scientific patience, will take it up and observe a larger number of patients, and during a longer time than I can hope to live and thus be able to give a positive answer. In the following case this treatment was not begun until after compensation had failed, but is selected because it has been so treated longer than the rest, and it affords some grounds for believing that the treatment will be beneficial.

At 30 years of age, J. C. was a volunteer in the United States Army and in 1862 had his first attack of inflammatory rheumatism, from which he thinks that he fully recovered. In 1863 he had a more severe attack, and when he had got rid of rheumatism his heart was so seriously affected that he was discharged and sent home, where he had no treatment, but nature, and a year's time so far repaired the injury that he resumed his business of rancher and stock dealer, which he followed for eighteen years. When he came under my care in 1883, he was so waterlogged that he could not sleep in the recumbent position. A vigorous use of hydragogue cathartics rid him of his dropsy, when apocynum and strychnin were prescribed and continued for the greater part of a year. One or both were suspended from time to time, and other drugs used as seemed indicated, and after the emergency was past, they were resumed.

He spent the summer of 1884 traveling in the Sierra Mountains, often passing elevations of 4,000 or 5,000 feet without much discomfort. When he returned he was advised to select a less laborious occupation, and chose one which required him to be on his feet a good deal, but entailed little physical exertion. Since then every two or three months he has taken apocynum for three or four weeks, sometimes with, sometimes without strychnin, and occasionally a few doses of some active hydragogue cathartic when the puffiness about the ankles does not disappear after a night's rest.

The area of cardiac dullness is little if at all greater than it was thirteen years ago, and he recently told me that he had not necessarily been absent from his place of business for more than three days in succession for seven years, and had not felt better able to attend to business in fifteen years than he did now. In corroboration of the last assertion, it can be stated that he has lately taken a second wife, who is well within the child-bearing age.

If this case proves nothing else, it proves that the treatment is not of necessity rapidly fatal. If aortic stenosis is extreme, digitalis in large doses rapidly secures a fatal termination, while apocynum will often prolong life in comparative comfort. If mitral stenosis is extreme, digitalis would theoretically seem the remedy to choose, but in practice apocynum will sometimes give more relief, probably because it promotes elimination through the respiratory tract to a greater extent than any other drug resorted to in this condition.

Not unimportant is the property this drug has of overcoming insomnia. So often was this seen in cardiac cases, both functional and organic, that I was induced to try it in other cases, and often with success. When used for this purpose, begin with a dose three times a day and after two or three days if sleep is not more satisfactory,



increase the dose each day, making the increase at the night dose until the sleep is secured or vomiting is induced, when the patient is sure of one night's sleep, after which reduce the dose to an amount previous observation has proved did not cause nausea.

It will sometimes fail, and so does every other hypnotic drug or remedy. But two points can be claimed in its favor which cannot be claimed for any other drug used as a hypnotic. First, it is always and under all circumstances perfectly harmless. Second, the patient never acquires the drug habit. To assist in removing the solid edema which often prevents the healing of varicose ulcers in the aged, apocynum has proved more useful than any other drug. Of course if positive proof, or probable evidence of syphilis can be had, specific treatment is in order. But this does not preclude the simultaneous use of apocynum. If the general health is fair and the patient put in the recumbent posture, the limb elevated and proper local treatment resorted to, these cases are not difficult to cure. But it is different if the patient must "work to live" and that work requires standing most of the day.

Previous to the invention of the elastic bandage, I scored more than one failure among this class, but since I have been able to furnish my patients the bandage and have given them apocynum, no failures have occurred, not even in two cases of long duration, in which rigidity of the hip joint prevented elevation of the limb even at night.

#### BRIEF NOTES ON CONSERVATIVE THERAPY IN THE TREATMENT OF TUMORS.

THOMAS H. MANLEY, M.D., NEW YORK.

There is perhaps, in the whole domain of surgery, no class of lesions of greater interest or of greater frequency than tumors.

In our time, when progress along the line of advance of knowledge has been at so marvellous a pace, yet in many fundamental questions bearing on this topic, our information is by no means definite. Thus many eminent pathologists admit that it is by no means certain what a tumor really is. Virchow declares that one way to torture himself to death, and yet he is unable to define a tumor.

All are agreed that the causes of new growths are yet unknown. Under this head Delbet declares that "the study of neoplasms constitutes one of the most obscure and difficult in pathology. The immortal Pasteur and his disciples shed refulgent light on the nature of a great number of maladies, but the origin of neoplasms remains enshrouded in an impenetrable obscurity, and in spite of our accumulated knowledge, we yet know nothing of their etiology or pa-

thology, with their morbid anatomy alone are we acquainted."<sup>†</sup>

Many difficulties yet lie in the way of differentiating the benign from the malignant forms.

At the present, surgery aggressively attacks quite indiscriminately tumors of every description, especially those deeply lodged in the serous cavities or involving vital organs; and it probably would be no exaggeration to say that now there are more than fifty tumors removed by sanguineous methods, for one in pre-anesthetic times, when the horror of physical agony and the dangers of post-operative infection terrified the patient, who bore up with his affliction till all hope of spontaneous subsidence had fled, or all the resources of palliative therapy had failed. Nor was the surgeon entirely free from serious apprehension when he was about to extirpate one of these deeply lodged growths, for it is recorded of the cold phlegmatic Abernethy that on the eve of a capital operation he declared that he felt like a man about to be hanged.

Now, however, with a practical knowledge of the living anatomy in skilled hands, and by the aid of anesthetics and antiseptics, in properly selected cases, tumor extirpation should entail practically no operative mortality. This security against accident has given a great impulse to radical interference, so that today, in many instances it has without doubt, led to excessive and needless operating.

The dictum, too, that every tumor is an excrescence, and that in the most innocent, malignant degeneration is possible, has provided a justification for this.

The conditions which necessitate remedial measures during the evolution of tumors, should be considered.

No attempt will be essayed here to define a tumor, though, on theoretic grounds, it might seem desirable in order that the lesion, which it is proposed to consider, be described. Still this merely chiefly involves the clinical and morphologic characters in diagnosis. Clinical recognition is ample in most cases; indeed we have made but little positive addition to it by our pathologic studies. The same, to a large extent, applies to the special character of a growth, that is, whether it be benign or malignant.

It is generally conceded that in epithelial proliferation the morphologic characters and arrangement in a certain degree decide the class to which it belongs; but in many of the sarcomata, or in morbid conditions allied to them, the microscope alone is an uncertain and fallacious guide; nor, in either will the morphologic revelation point with anything like precision to the course the lesion will pursue if left undisturbed. Here symptomatology and clinic medicine come in, which alone, in the large majority, settle the

<sup>†</sup> *Traité de Chir. par le Dentu et Delbet*, Vol. I, p. 217. sur des Neoplasms.

question of diagnosis; though it may be made more positive by the auxilliary aid of the microscope. In order, then, to accurately determine these neoplastic conditions which necessitate remedial measures, our chief reliance must be the ability to correctly interpret pathologic processes, morbid phenomena in vital structures. This embraces a survey of the personal history of our patient, the general constitution and physiologic state; conjoined to which are deliberate, thorough and repeated examinations of the region involved, with an analysis of those symptoms evoked by local disturbances. As a pilot in many dubious cases the therapeutic test stands far ahead in the program.

Causes which influence patients to have growths extirpated are of interest to every practitioner. Except on the hands, head or neck, adventitious growths of diminutive proportions are concealed from view, first by the garments, and secondly by the integument and the protective envelopes of the cavities. In the former cases, extirpation is most commonly resorted to for cosmetic purposes.

Very many individuals bear innocent growths through life, in secret and concealed locations. The greater number of tumors only become palpable with the disturbance of function; and it may be generally stated that there are very few who seek professional advice until local suffering begins, or the health is in some positive manner disturbed. This is in the first place because the initial advance of peripheral or visceral benign or malignant neoplasmata is usually painless and insidious; and further, the afflicted instinctively hope and believe they may resolve away ultimately, in a manner similar to their advent. Very many, however, are in utter ignorance of their condition, until the new growth or structural changes designated "tumor" is discovered by their physician in the course of a critical examination.

A tumor discovered, does the prudent practitioner summarily urge radical measures for eradication if function be not gravely compromised? He certainly does not, for the reason that his sacred obligations in conscience to his patient do not permit him to recommend any description of mutilation of their body, nor to imperil life, except as an extreme resort, as he well knows that though the gauntlet of operation may be safely passed, yet various lingering sequelæ often follow. But further, if experienced, he also knows that by no means infrequently local infiltrations and nodular indurations of both structures or organs may vanish of themselves.

His patient, therefore, will not be, and should not be, set aside for sanguineous intervention unless the physician is certain beyond all doubt of the malignancy of his case; or unless function be seriously disturbed or life threatened. The

writer is fully conscious that these views are not in consonance with the dominant ideas of most general surgeons, but nevertheless, in the present state of our knowledge, they cannot be gained or refuted.

We have often heard and read about "educating the practitioner to sending such cases early to the surgeon," and this is often most strongly emphasized by the unseasoned, superficial fledgling, who must "unlearn" many things before he can be regarded as a trusted adviser. Extensive experience rather than ephemeral theories must be our guide in cases of tumor, for there are no lesions which more severely try the discretion and judgment of the physician.

Tumors requiring relief or radical measures may be classified as follows:

- (1) Those which compromise functions or are a source of physical suffering.
- (2) Those of a benign character which may ultimately exhibit a tendency to malignant development.
- (3) Those of a doubtful origin; but in which the clinical history and morphologic elements point to the dominant rôle of inflammation.

Under the first heading comes that class of growths which generally promptly call for interference, the quality and extent of this depending on the degree of local impediment produced.

New growths never immediately hermetically close a tubular conduit; so that ample time is permitted to decide on the safest and most certain mode of attack. This is well demonstrated in neoplastic tumors of the larynx, the esophagus, the pylorus, the urethra, the rectum, or other passages.

It has been a question which has involved a protracted controversy whether or not benign growths or chronic inflammatory exudates do not in time tend to retrogressive or embryonic degeneration. If it could be demonstrated that this is a pathologic law, we would have little hesitation in our course of action. Occasionally we witness the breaking down of surface warts in advanced age with wide-spread infiltration of malignant elements following. Anal hemorrhoids are said, by some, to constitute the starting point of epithelioma while quite a few believe that cervical lacerations and the vascular vegetations of the endometrial adenomata may take on cancerous changes. But these events are so unusual and isolated as to provide no ground for a formulated rule.

It is true that under the microscope in various types of glandular hyperplasia, we may sometimes note such changes in the follicles, the plastids and their nuclei, as are found in the periphery of a cancerous growth, or an incipient sarcoma. However, just what significance should be attached to such an aberrant state of the protoplasmic corpuscles we are not able to determine; and it certainly would be injudicious and

unwarranted to recommend prophylactic extirpation with nothing more than this to indicate possible malignancy. Many growths entirely devoid of those specific cellular elements and degenerative changes significant of destructive action are nevertheless sometimes positively malignant in their course, quickly returning and breaking down after excision. This is notably the case in various types of lymphadenoma myoma, myofibromas, and unmixed fibromas.

In all tumors in their stages of degeneration, inflammation plays an important rôle. As an active process we only observe it after the overlying integument is broken or central, disintegrating changes have begun, when infection is hematogenous or peripheral.

By all odds the most formidable difficulties we encounter in the differentiating of neoplasms is to isolate those dependent on an inflammatory hyperplasia in adenomatous structures or those essentially composed of new elements. This is notably the case in lesions of the buccal cavity, the pharynx, the larynx, the stomach, the rectum, the male or female genitals, or the mammary gland.

Since Koch's discovery it has been repeatedly demonstrated that various types of ulceration involving the penis and bladder, the generative passages, the rectum, and the alimentary canal, formerly regarded as cancer, are tubercular. From the secretions or discharges in these situations the specific bacteria can be rarely isolated, although the inoculation in receptive animals will often produce tuberculosis.

The stellated cicatrization, the induration and the ulceration of actinomycosis present many features common with scirrhus. Localized tumefaction of the submucosæ of the intestine or integument with gummatous degeneration and ulceration of tertiary syphilis are not altogether unlike the invasion of malignant disease. The strumous diathesis, now-a-days said to be a "condition," belongs to childhood, though its manifestations are often witnessed after puberty, is sometimes attended with an infiltrated tumefied state of the lymphoid tissues and organs.

In all of the above pathologic conditions, whatever may be their precise etiologic factors, various phases of inflammation are invariably present, the acute, the chronic, suppurative or ulcerative.

It should be added that we may also have a localized inflammation with turgescence, hypertrophy, fibrosis or ulceration from a local trauma an irritant or a foreign body.

A detailed consideration of this aspect of the subject would involve a task far beyond the scope of this contribution, but what the writer would strongly emphasize is that before one pronounces the character of a given lesion or neo-formation, at least all the specific types of inflammatory action, should, if possible, be eliminated.

In a considerable group of simple benign excrescences, this, of course, is unnecessary, but when the question of malignancy is raised it becomes of paramount importance.

Until a recent period it was the general opinion of practitioners that new growths productive of no pain or inconvenience should not be molested. But now it is coming to be regarded as a sound principle of surgery to promptly remove a tumor whenever it may be safely accomplished as it is claimed that once developed it will never of itself disappear, and that it is prone, if left alone, to, later in life, take on malignant changes. This course is all the more strongly urged because of the security which modern science offers against suffering or the dangers of post-operative inflammation.

Do our observations of a great number of these lesions over many years, support this assumption? Very much can be said pro and con, though no one will deny that the inducement is great, now that we possess the priceless boon of both local and general anesthesia, to clear any superficial growths wherever situated. When we come to those more deeply lodged it is a more serious question, particularly when the cavities are invaded; for now we have to count on those occasional post-operative sequelæ which may produce more misery than the state for which the operation was performed. On the whole, it may be affirmed as a postulate that when a tumor shows no tendency to augment its volume and is a source of no inconvenience or disfigurement it should be left alone. These we think constitute a small minority.

A fierce controversy has been waged on the management of benign uterine tumors, since vaginal and abdominal extirpation of them has become so safe and general a resort. An attentive clinical study of this class of growths shows:

- (1) That their development is usually insidious, some authors claiming that indolence is the rule in malignancy until the adjacent tissues are invaded.
- (2) That when of diminutive volume they occasion little or no inconvenience.
- (3) They are well known to undergo marked fluctuations in their proportions.
- (4) The tendency of the benign tumor is toward interstitial degeneration, atrophy, condensation or resorption after the menopause in many cases.
- (5) They rarely, *per se*, imperil life.

Anatomically they may be divided into two classes, the subserous and the submucous; the latter are the more troublesome, but are capable of complete enucleation by the vaginal route.

The great divergence of opinion has been on the management of the subserous variety of tumors. Can we by constitutional measures or local treatment of any description arrest their advance or induce atrophic changes in them, or is



it prudent to recommend surgical excision of them if serious functional disturbances are absent?

In response to this interrogatory one might very justly affirm that the present rapid radical and quite innocuous ablation of these masses constitutes one of the most brilliant achievements of modern surgery. The operative technic of their displacements has about attained perfection. If it were to stop here, the task would be ended but the patient must be followed further in order to determine the ulterior effects of operative procedure; for the mere fact that a patient survives an operation is no argument in support of it.

Let it be remembered that the operation involves desexualization and the loss of the uterus, and not very infrequently a very unmanageable type of vaginal or abdominal hernia or interstitial adhesions of a very troublesome character may follow. With a knowledge of these facts is it not obvious that electricity, massage and other tentative expedients be first faithfully tried before extreme measures are contemplated?

Space will not permit of any extended notice of the manifold types of benign neoplasms of the mucous membranes, of bone cartilage, the absorbents or glands; and hence, in conclusion, the malignant phases of neoplasia will be briefly considered, reserving for the term malignant cellular proliferation involving only the meso- and ectoderm or sarcoma and epithelioma.

The term cancer, in its literal sense, always conveys a terrible significance, since cancer is a malady which only releases its grip with the death of the victim. This applies to the malady in its fully developed stages.

In order to decide on a line of action in malignant disease a knowledge of its natural history is of great value, assuming for a positive certainty that the lesion to be investigated belongs to the malignant type. For example, labial epithelioma in old men, once cleared away, rarely returns. The same histologic lesion of the tongue or uterus is generally quickly destructive. In young subjects the tendency to generalizative relapse is almost invariable, while in those past middle life cancer pursues a more chronic course and when extirpated returns after a longer interval than in the young.

The most diverse types of structural degeneration seize on the mammary gland of women. This is a favorite site for cancer, next to the uterus the most common of all, though pursuing a much more chronic course with longer intervals of relapse after excision. In recent times we have witnessed a wide departure in the surgical treatment of this lesion, based, however, on little more than empirical premises. It is yet an open question, however, whether this can be regarded as definite progress. Statistics certainly demonstrate that modern operations for cancerous

breasts are followed by less frequent local recurrences than formerly; but let us be quite certain that all sources of fallacy are eliminated before this is conceded.

Since the serum-therapy for diphtheria has been introduced we read of enormous reduction in the mortality from this malady. It is equally well known that a very large proportion of these cases had nothing to stamp them as diphtheritic except the presence of the Klebs-Loeffler bacillus when the classic symptoms of the disease were quite entirely wanting. And likewise in mammary lesions if every case is set down as malignant in which there are nodular indurations, a depression of the nipple, and a coincident tumescence of the axillary lymphatics we will most certainly realize marvelous results after operations for "cancer," in a considerable portion of which, however, there has been no cancer at all.

Two cases came under my notice in the past year which well illustrated this. One was a young widow of thirty years, the other was a spinster of about the same age. Both had been critically examined and condemned to have their breasts removed and chest walls swept away. In the first a deep-seated suppurative mastitis was found. This I freely opened up, irrigated and drained. That ended the "cancer." The second case was wanting in the pallor and cachexia, which mark true malignancy. The mass, about the size of a tangerine orange, lay above and to the inner side of the nipple on the left side. On manipulation it imparted a slight sense of fluctuation. On dissection it proved to be a dermoid cyst, undergoing degenerative changes.

Before we can recommend the double sacrifice of the mammary gland and the shoulder joint all possibility of error should be eliminated. To sunder the attachments of the pectoral fascia, ligaments and muscles, and forever thereby destroy the full action and strength of the shoulder, is indeed a very serious affair. What must be the effects of stripping off the flat mammary gland, the pectoral fascia and pectoral muscles, thus leaving the underlying lung forever denuded of all its protective soft parts except an attenuated outstretched cicatrix? To be compelled to force a genuine cancer case to submit to such a mutilating procedure is to assume a grave responsibility, but to inflict it on one with an innocuous non-cancerous intumescence would be a cruel blunder.

We are not yet in possession of irrefutable evidence that those widespread dissections of the chest walls provide any greater guarantee against recurrence than the more restricted incision which included the mammary gland alone. They are only permissible on the ground that the lesion is of a local origin and that we are enabled by the character and arrangements of the cellular elements of the parts involved to pronounce



on its destructive character. The former is an entirely unsupported assumption quite destitute of scientific support; on the contrary many instances would rather lead to the inference that long before local manifestations are evident the disease has already generalized or seized on other organs.

Mammary tumors, which are the source of no pain or discomfort, should certainly not call for radical surgery in the way of the simultaneous amputation of the gland, because they may be dispersed by simple methods and no sacrifice of the anatomy. For many of these acupuncture, electrolysis, hypodermication, hydropathy, pressure, the simple puncture or enucleation will suffice.

With those of a malignant nature there still remains good ground for difference of opinion on the modes of local treatment. Bearing in mind that many types of mammary cancer pursue a chronic painless course, common honesty and humanity should interdict radical interference unless urgent symptoms are present. When persistent pain begins, the time for action has come, if for no other reason than to secure physical and psychical rest.

Malignant sores and swellings are best directly dealt with by cuts or caustics. Nothing equals a clean dissection for cleaning away operable masses, and as it entails no large loss of blood and no suffering it would seem to be the ideal. But the human being instinctively revolts against mutilations, however insignificant and often not without good reason.

Caustics and cauteries are of great antiquity, but few surgeons are capable of judiciously employing them, since the scalpel has so largely displaced them. Few except the advertising or itinerant charlatan are masters of their technic. In spite of their unpopularity in the profession, signs point to their regaining their former legitimate position among the most valuable remedies in our possession.

The escharotic does admirably in small superficial growths and even in some of considerable volume. Its operation is not attended with the loss of blood, but during its course of action the degree of pain is sometimes most extreme, unless the system is fortified by the free use of opium. Local absorption of the toxic chemical is another objection. With proper precautions and diligent attention, however, all these objections to the escharotic may be obviated, so that there can be no doubt but that in an intermediate class of cases the chemical may with advantage supplant the incision.

A little more than a year ago two middle-aged women came under my observation with mammary epithelioma, one, the younger with a tumor of the scirrus type, the elder with one of the medullary. The latter was pronounced of the most malignant type by one of our most noted patho-

logists, who advised its immediate and radical extirpation, but she had not long before lost a sister from an operation and would under no circumstances consent to excision. This woman came under my care, the other submitted to excision. My patient was treated by a local charring of the mass by zinc chlorid, its action being so regulated that she did not lose a single night's sleep. In three weeks the whole mass was thrown off and the breach healed up. During all this time and since she has continued with all her duties as a janitress. There remains now a small painless ulcer with no engorgement of the axillary absorbents. Her general health is quite perfect.

The other woman, a seamstress, who was operated on, had the whole chest wall cleared away on the side involved. She has never yet fully recovered from the shock of operation. Her arm on the side operated on is quite helpless and useless, the fingers are cold, numb, and bloated, the arm and axillary vessels tied down by a cross welt of scar-tissue. Now unmistakable signs of recurrence in the supra-clavicular glands and in the clavicle itself are present. Her progressive anemia and distressing dyspepsia point to probable metastasis or generalization. The inference which must be drawn from these and other similar cases is too obvious to require comment.

The march of sarcoma is more erratic yet and its morphology is much less understood, for it is at once a most tractable type of lesion and again the most swiftly recurrent and mortal. Its essential cellular elements being of the embryonic order lymphoid or medullary bear a close analogy to the morphologic characters of inflammatory change and thus its definite diagnosis by the microscope remains quite impossible without the interpretation of its clinic phenomena. Having eliminated all sources of error and arrived at a reasonably conclusive diagnosis but little choice remains in the mode of treatment. These growths tend towards early diffusion with rapid augmentation and therefore prompt and radical extirpation are the safest during their early development and promise the greatest security against recurrence.

Local palliative measures seem to have no place here, although constitutional treatment may be justified.

All of the most potent and precious specific medicines in our possession are of empirical origin, and it must be confessed that the vast progress made in morphologic and bacteriologic studies during the past thirty years have not provided us with a single remedial agent of specific properties. That they have flashed the way for prophylaxis all will concede, but little, if anything more can be proven, serum-therapy not excepted.

We already have practical specifics for many benign neoplasms, and we have good reasons to believe that several others are dependent upon

physiologic laws, preventable causes. It is only with neoplasms presenting some or all the features of malignancy that we are destitute of any specific remedies. Knowing as we all do that whatever the *materia morbi* of malignancy is, its starting point being some deranged state of the system, it is self evident that it can be reached, if ever, only by constitutional remedies, by some yet undiscovered specific. Here indeed is a new field for the restless activity of an ambitious investigator, for it is on the lines of clinic investigation and therapeutic experimentation alone that the ravages of this dread disease can ever be sought out and effectually combated.

We are yet wanting a single known remedy which possesses either prophylactic or remedial powers in malignant hyperplasia. In various types of cancer chian turpentine, hemlock and arsenic have been recommended as of special value but in my own hands they have all proven quite inert. Nevertheless in most types and stages of malignancy various medicines are of the greatest value.

The great strength of medicine lies in palliative treatment, and in the front rank of drugs to be thus used stand alcohol and opium. The former when within the means of the afflicted one is of the greatest value for it is not only a stimulant but likewise is sedative and narcotic. There are, however, many contraindications to its general employment and in such cases we must take up opium. To many this invaluable agent seems not only to lighten the weight of despondency which crushes the spirit of those unhappy mortals but it is likewise known to exercise a most favorable influence upon the disease itself.

What does an exodus of 100,000 to the Klondike mean to the business of the country? I have figured it out on the basis of cost and proportion as ascertained, and it is this: That each man of them would average first and last an expenditure of \$600, making a grand total of \$60,000,000. The United States railroads would get \$5,000,000 of this; Seattle merchants and hotel keepers, for outfits and transient guests, \$25,000,000; the prospector's home town and towns en route to Seattle and other Pacific points, \$5,000,000; ship companies, for transportation to Alaska, \$10,000,000; and for the transportation of freight over passes and in Alaska, \$15,000,000. This would represent only the actual needs of this many prospectors, and would cause a large increase in other business directly connected with it. It means that in 1898 \$60,000,000 will be spent in search of gold in the yellow creeks, and in the same year not more than one-fourth of that amount will be produced. But the output is likely to come nearer the expense as each year goes by, and in a few years to exceed it.—From "The Rush to the Klondike," by Sam Stone Bush, in *American Monthly Review of Reviews*.

### THREE COMPLICATED DISLOCATIONS.

WALTER H. PARCELS, M.D., LEWISTOWN, PA.

A physician, residing in an adjoining county, brought to my office a man about fifty years of age with a subglenoid dislocation of the humerus, stating that the accident had occurred just thirty days previously. With considerable difficulty he had immediately reduced dislocation and was certain that he had succeeded in getting the bone into its proper place. Four days later the man applied to him again and he found the head of the humerus in the axilla. All efforts at reduction failed and the patient refused to have anything further done with the case. Later, finding that the arm would be practically useless, he consented to consult me.

The swelling and tenderness had now nearly subsided, but of course he had regained very little control over the motions of the arm. Calling to our assistance two or three other physicians who were conveniently near, we decided to make one more heroic effort at reduction.

The patient being laid on his back on the floor and thoroughly under the influence of chloroform, we made the usual efforts to bring the bone to its proper place, but without result. The arm was then moved in all possible directions, with a view to breaking up adhesions. After fully a half hour of continuous work, reduction was accomplished. I saw the patient a few months later and the arm was seemingly as good as ever.

We accomplished the most when we placed a foot without the shoe on top of the scapula and pulled the arm directly upward. The case teaches that this kind of dislocation is entirely within the range of possible reduction, though adhesions have been forming for twenty-six days. The man was very strong and muscular and we found it necessary to apply great force.

Some time last summer Dr. Rothrock, of Reedsville, consulted Dr. Harshberger and myself at my office with reference to an elbow injury to a boy's arm. The boy was about eight years old and the accident had occurred ten weeks previously.

At that time the injury to the soft parts had been very great, with so much swelling of the arm that for a time Dr. Rothrock was in some doubt as to the exact nature of the injury. Finally he diagnosed a dislocation, gave ether and proceeded to reduce it. After much effort, he believed that he had succeeded. The boy's family were very unreliable and the dressings may have been frequently readjusted by them in the surgeon's absence. Under these circumstances a reputable surgeon is practically powerless in his efforts to secure a good result.

Now, after a lapse of ten weeks, we found complete dislocation of the ulna and radius back-

wards and upwards, the coronoid process of the ulna resting in the olecranon fossa. The arm was nearly straight and the boy could flex it only a little, though the swelling and tenderness had nearly subsided. I acquainted Drs. Rothrock and Harshberger with the happy result following the efforts to reduce a dislocation after twenty-six days as detailed above, and we decided to try reduction in this case also. The boy was placed completely under the influence of ether and, by exaggerated movements of the elbow joint, we sought to break up false adhesions and then attempted to pull the bones into place; but all our efforts, though oft repeated and long continued, were entirely futile.

Our next object was to improve, if possible, the flexion and extension of the arm. With the patient still anesthetized, we brought the arm entirely straight with little difficulty, but flexion was almost impossible. Finally the arm was forcibly flexed to a little beyond a right angle and retained in this position for a day or two by a bandage.

At the end of four or five months, Dr. Rothrock writes me:

"After working the elbow it swelled a good deal, but it all left in a few days. I kept moving it every day for about three weeks. He can get the arm nearly straight now and can flex it to a little better than a right angle. He says he can carry as much as with the other arm, can chop wood, husk corn and use it in almost any other kind of work."

I regard this result, under the circumstances, as a triumph of surgical art and an incontrovertible argument in favor of giving an anesthetic and forcibly breaking up false adhesions in joint injuries if a tendency to ankylosis exists.

Some time, "if the spirit moves me," I may write a somewhat detailed account of the many cases in which I have adopted this procedure and have been rewarded by nearly or quite perfect limbs; and in other cases left behind me monuments to commemorate surgical failures, because the patient or friends refused to allow the anesthetic to be used. It may, however, be remarked in passing that in this case the boy can now extend and flex the arm to just about the exact limits reached by us when he was under the anesthetic.

Last October I went to see G. M., aged about 25 years, a strong and healthy man of good habits. He had lost control of his bicycle when going down a long hill. His appearance was remarkable. In addition to extensive abrasions of the face and a scalp wound, the right arm was swollen from the shoulders to the fingers, the skin was greatly discolored all about the elbow joint and numerous large vesicles filled with bloody serum existed in this part of the arm which was enormously swollen. The accident

had occurred about thirty-six hours before.

Being twenty-two miles from home, he had wisely applied to Dr. H., a local surgeon, who had dressed his injuries and carefully explained their nature to him in order that he might describe the primary condition to me. Yet it would have been better to have sent a written statement for, though the patient was a man of rare intelligence, all the information I could get was about this:

"He gave me ether and when I woke up he said he had found the elbow out of place and had fixed it."

Ought I to give ether, manipulate that terribly inflamed elbow joint and determine if possible the exact variety of dislocation?

I decided to assume that there had been dislocation of both radius and ulna backwards and upwards, complicated by rupture of an artery, probably the anastomotica magna or the posterior ulnar recurrent; for a ruptured artery would be necessary to account for the rapid and extensive swelling of the whole arm and the early formation of the blebs.

Dr. H. answered my letter of inquiry by saying that this had been his diagnosis.

The arm had been placed in a semi-flexed position by Dr. H. and retained this by an angular splint. This position I maintained while trying to control inflammation and treating all open wounds antiseptically. At the end of about two weeks two openings formed on the posterior aspect of the arm near the elbow from which I removed a considerable quantity of coagulated blood and a little pus.

Passive motion and massage were begun early and, after the subsidence of the swelling, I discovered that the olecranon process had been fractured, and it had united by a ligament which fortunately was less than a quarter of an inch in length. Some ankylosis resulted which I wished to overcome by the use of ether and forcible manipulation, but the patient objected.

The arm can now be flexed completely, but he is unable to extend it until it is completely straight. He can use it, however, as well as ever and thinks the result a marvelous surgical achievement, an opinion, alas, not fully shared by his surgeon.

Christian science has its roots in the element of society from which all similar fads derive support. Its advocates are persons of considerable social influence, of good moral character—too good to appear compatible with the deeds of inhumanity and tendencies toward murder—of leisure for proselyting. Such persons cannot be alluded to as ignorant and uneducated, yet we usually find them superficial in knowledge and comparatively untrained in intellect. They are just the ones who can be convinced by sophistry, and who cannot follow a truly logical mind in the exposure of fallacy.—*Medical News*.



## EXPULSION OF THE OVUM ENTIRE.

A. F. MYERS, M.D., BLOOMING GLEN, PA.

I was called January 21 to Mrs. S. Y. aged twenty-five, multipara, who was in labor. Arriving at the house, I was urged to hasten, because everything was already in the bed, and they feared ill results. This was literally true. Between the patient's thighs, lay a mass that proved to be the complete ovum, placenta and membrane with the fetal contents in a large ovoid sac unruptured,—the entire contents of the gravid uterus expelled in one body.

In disrupting the membrane, I noticed the escaping waters had a cloudy appearance and a slightly offensive odor. It was evidently a vertex presentation, the placenta was just outside of the vagina and the head in the distant part of the sac. The child, a male, was by all appearances fully developed. It was of medium size, 16 or 17 inches long and weighed about seven pounds. I noted no difference in its size as compared with the one born three years before, at full term, at which confinement I also attended. The finger nails were properly formed and projected beyond the finger tips. Both testicles were in the scrotum. The lanugo had disappeared. The bones of the head and limbs seemed fully developed. There was some hair upon the head. There had been considerable increase of subcutaneous fat as the body and face was well rounded and seemed fully matured. The cuticle peeled off with a little effort, indicating that life had been extinct for some time. The placenta was of normal thickness and density; its maternal surface was unusually dark and it had a slightly

offensive odor; it did not appear as if any abnormal adhesions had existed. The membrane was covered with a slimy viscous substance. Only a moderate amount of blood had escaped following the placenta. The uterus contracted nicely.

Mrs. Y. is of medium height and weight; pelvis of proper shape and size with a normal pelvic outlet. The previous labor was normal and there were no lacerations. The former child weighed eight pounds. The last menstrual period was during the last week in April. There was no specific taint whatever, both parents possessing perfect health.

A week before I was called, because, while the patient was going down stairs, her feet slipped and she fell heavily upon her breech on a step and slid down a few steps more in that manner. Instantly she felt a pain in her abdomen as if something had torn, followed by a constant heavy feeling and tenderness. She rested for a few hours and then followed her usual household duties with much discomfort. When on her feet she had a constant desire to urinate. During the following night and no time after, did she feel any movement of the fetus. The following day she had considerable mucous discharge that was very slightly tinged with blood. There was no chilliness, nor fever. She was in labor only about one hour. The lochial discharge had a slight fetid odor for a day when all appeared normal. The patient made an excellent recovery.

The fall upon the steps was evidently the cause of the trouble, the result being the separation of the placenta and the death of the child; followed by the expulsion of the complete ovum with membrane intact.

## Second-Class Mail Matter.

The measure known as the "Loud Bill" was defeated in the House of Representatives on the third of March. It was reported in the last Congress from the post-office committee, by Mr. Loud of California, who was then and is now the chairman of the committee.

It was intended to reform what was regarded as abuses of the postal laws, in the sending of "second-class" mail matter. Second-class matter consists of newspapers and other periodicals sent from the offices of publication, and is entitled to one cent a pound. Under the law many publications have been admitted to second-class rates which Congress originally did not intend to include in that class, such as printed books and newspapers for advertising purposes only.

The difficulty lies in drafting a measure that will lop off the abuses without inflicting severe injury upon legitimate use of the "second-class" privilege by publishing houses that have grown

up under it. This may seem a simple matter, but in practice it is not so easy. Mr. Loud and his fellow-committeemen labored to produce a bill that would draw the line between the proper and the improper use of the low-rate privilege; and they are entitled to the credit of making a fine effort to protect the postal revenues.

But in the opinion of a majority of the House of Representatives the present law, with its admitted evils, is to be preferred to the Loud amendment. Of course those who profit by a loose interpretation of the law were united in their opposition to the measure. They were, however, by no means the only opponents of it. The bill was objected to in the interest of the people who get cheap literature oftentimes alas! cheap in two senses—and of those innocent publishing houses which would suffer with the guilty, were the act to be passed.

No doubt the effort to effect a reform will be continued. If there is any way to accomplish it without incidentally doing great harm, it ought to be found, and adopted.—*Youth's Companion*.



## Contemporary Review.

### Ablation of the Ovary.<sup>1</sup>

This is a clinical and experimental study of a subject of which very little is known beyond general principles. Of the physiologic chemistry involved almost nothing is known beyond what the increase or the decrease of certain elements in the excretions permits one to guess.

Semiramis, queen of Assyria, is said to have been the first to cause the sexual glands to be removed, and Nebuchadnezzar had all his prisoners of war castrated before using them as servants. The priests of Diana of Ephesus were obliged to be castrated. Among the Christians, Valesus founded a sect which held castration indispensable before becoming a priest. The Hottentots had a custom of removing one testicle to render themselves more speedy in running. The ancients used to remove the ovaries of young girls, so that they might retain their youthful state for a long time. Aristotle, Pliny, and Galen all mentioned the castration of female animals, such as sows. That eunuchs were relieved from attacks of certain diseases is shown by Hippocrates, in his "Ununuchi non Laborant Podagra." The priests of Cybele treated mania by castration. Galeno advised it, especially for leprosy, and in the seventeenth century it was practised for many diseases.

In our time castration of women has been extensively practised; for instance, by Kelley for severe uterine colic occurring at every menstrual period; by Lawson Tait in menstrual epilepsy, in hystero-epilepsy, and in hysteria. Some have practised castration to procure sterility, and to prevent reproduction of hereditary mania, and Keppler at the 1891 Berlin Congress advanced the idea that "matrimony with a castrated woman is the ideal type of Malthusian matrimony, and is the sole manner of practising Malthusianism without compromising the health and happiness of the parties concerned." Spencer Wells, on the contrary, has strongly decried this excessive use of castration.

Ablation of the ovaries has given good results in fibrous tumors of the uterus, before the technic of extirpation had been developed by Martin and others to its present state. This was advised by Battey in America, Hegar in Germany, and expanded by Lawson Tait by taking the tubes away also, and it has acted by stopping the chief symptom—the hemorrhage. But it is in osteomalacia, a disease whose pathology is still obscure, that ovariectomy is at present attracting the most notice, because all other remedies have failed, and this seems to offer relief.

<sup>1</sup> CURATULLO and TARULLI in *British Gyn. Journal*. (*Annali di Ostetricia e Ginecologia*.)

### Massage in the Various Diseases of the Female Genital Organs.<sup>2</sup>

From one hundred cases, the author has reached the following conclusions as to the application of massage in different diseases:

1. Cicatricial parametritis. Here massage is a powerful and in many cases the only successful means of treatment. Gonorrhea does not constitute a contra-indication to the use of massage under the above conditions. Under the influence of massage before everything else patients lose the painful sensations and following this the distressing pressure-feelings.

2. Exudative parametritis. In this massage forms a good means of treatment, but its usefulness is limited by the duration of time required to attain its aim, and by the care which it is necessary to use in selecting cases for massage so as to exclude those in whom exacerbation may occur. Hence massage should be avoided, (a) when the swelling is distinctly thick in comparison to its extent; (b) when there is increased temperature. Likewise all more or less extensive swellings are unfavorable for massage.

3. Immobile retroflexion of the uterus. Here massage is a sound treatment. Those cases give the best results in which it is possible to reach the fundus uteri with the external hand in combined examination. After rectification of the uterus, the massage should be continued some time. The introduction of a pessary often speeds recovery.

4. In displacement back and to the side the same remarks are applicable as in 1 and 3.

5. Inflammation of the ovaries and the adjacent peritoneum (periophoritis). Massage is very good in oophoritis, especially when the ovaries are fixed, but the results are very slow.

6. Chronic inflammation of the uterus and hypertrophy of the cervix are neither of them suitable for massage.

7. Subinvolution of the uterus after labor yields to massage very kindly, but the treatment must be continued some time—on an average one and a-half months.

8. Amenorrhea. Massage in certain cases will lead to complete re-establishment without pain, and as a rule permanently.

9. Chronic endometritis is not suitable for massage.

10. Mobile retroflexion of the uterus is not very amenable to massage, but in certain cases it constitutes a good method, not too heroic, and fairly successful. In these the indication for further treatment is to be found in the subjective feeling of the patient after the preliminary sittings.

11. In descent and prolapse of the uterus and vagina, and likewise in vaginismus, massage is

<sup>2</sup> RUBENSTEIN in *British Gyn. Journal*. (*Physician and Surgeon*.)

of no use, and in the latter it is absolutely contraindicated.

As regards other diseases of the female genitals,—for instance, menorrhagia, dysmenorrhea, local salpingitis or vaginitis,—the variety of their causes, and the insufficiency of observation have prevented the author from arriving at any practical conclusions. He decides from his observations that the number of sittings varies from ten to twenty of four to six minutes' duration, and spreads over from two to four weeks; massage of the female genitals is always performed bimanually; and as practically nothing more is required, it is within reach of every medical practitioner.

### Unification of State Medical Examinations and Licenses.<sup>3</sup>

It has not been many years since the circumstance that any half-dozen doctors in any State of the Union could get together and by their conjoint influence obtain a charter and a license to teach medicine and to give medical degrees, and to let loose every Spring upon long-suffering communities whomsoever they pleased to label "Doctors," threatened utterly to debauch the regular medical profession. Between hopeless contentions concerning ethical questions relating to the so-called "irregular" practitioners and a continual lowering of the average education of its own ranks, the medical profession seemed to be rapidly passing into a condition in which it would fail utterly to command respect of any one. Fortunately, however, the earnest appeals of the few finally awakened the conscience of the many; and at last, as the result almost solely of the efforts of the medical profession it (the profession) has been brought in a greater or less degree under the supervision of Government in most of the States; at least in so far that theoretically the Government has taken upon itself to say that no one shall be licensed to practice medicine unless possessed of a fair technical education.

The effects of the governmental pressure upon the medical schools has been pronounced. Two years' or rather the eighteen months' courses have been replaced by courses of four years' duration, as well as by steadily increasing narrowing of the entrance door into the medical school and of the exit door thence into the medical profession. It is plain, however, that before long a new era of education will have to be inaugurated, or rather a new direction will have to be given to the efforts of the medical profession in influencing legislation. On account of the lack of unity of action between the different State Medical Associations, and on account of the different physical or popular conditions in the different States, the legislation in the different States has been very diverse.

<sup>3</sup> Editorial, *American Med.-Surg. Bulletin*.

It is certainly a great hardship that, it may be, a great practitioner residing in the city of Philadelphia should be debarred from attending a patient in the city of Camden, or in New York, without undergoing an examination for which few properly qualified doctors are at middle age fitted. By middle age the medical practitioner of internal medicine has forgotten much of his anatomy, and all of his chemistry and surgery, whilst the throat or the ear or the eye specialist has become very misty in his knowledge of leg or rectal anatomy. It seems to be as essential for the future well-being of the medical profession and of the people of the United States, to whom it administers, that the man who is a legal practitioner of medicine in one State shall, as it were, *ex officio*, be a legal practitioner in other States.

There seem to us only two possible ways by which the proper unification of State legislation can be reached. The American Medical Association might attempt, through a committee, to collate the various State laws regulating the entrance to the practice of medicine, with the hope of evolving one law which should be urged upon the different States as a substitute for the various laws now in force; but the American Medical Association represents only a portion of the medical practitioners of America. It is very doubtful whether a law which it would finally propose would be a wise one, and it is almost certain that the association would fail in getting the desired legislative action. The second plan would be for the Medical Examining Boards to hold a convention and slowly and carefully, after thorough and prolonged discussion, to come, if possible, to some agreement or common basis of action, by means of which the legalized practitioner in one State could practice in another. If it were practical, in our opinion, the best result could be obtained by having a uniform law in all the States; if this were not practical, the law could readily be made to recognize in one State the practitioner from another State. It is probable, however, that this could not be done at once, for all the States. There are, indeed, in some States no Medical Examining Boards at all. If, however, the medical examiners of various co-lying States should agree that their laws were sufficiently alike to warrant a legal inter-recognition of them and should secure the necessary legislation, a group of co-acting States would be formed which would practically lessen the difficulties of the present situation, and would further become a focus to which would probably gravitate, one after another, the outlying States.

It is possible that the proper solution of the whole medical question would be for Congress to establish a National Board of Medical Examiners, with sub-divisions in the various States, but whether Congress has or has not the power is at present an unknown—and probably until

the last judicial decision should be reached, an unknowable—quantity; and therefore it seems to us that any attempt at central Federal legislation would at the present time be futile.

#### Treatment of Gastric Ulcer.<sup>4</sup>

Rest in bed, hot poultices, Carlsbad water. The poultices should be very hot and changed every ten minutes. The pain disappears in about five days; then Priessnitz bandages should be substituted for the hot poultices. Strict regulation of the diet. Surgical treatment should be resorted to under the following circumstances: (1) When there are repeated hemorrhages, which make the patient anemic. It depends on the nature of the individual case whether an operation should be performed or not when there has been only a simple profuse hemorrhage, for it may be so abundant that surgical aid comes too late. On the other hand, patients often recover from the acute anemia caused by a single hemorrhage; (2) when long-continued medical treatment has proven ineffectual to relieve the pains gastro-enterostomy may be tried; (3) when there is perigastritis caused by adhesion of the stomach to other organs, especially when a subphrenic abscess has formed; (4) when there are perforation of the ulcer and an opening into the abdominal cavity. The chances of a perforated ulcer healing are, of course, very small.

#### Hospital Abuses.<sup>5</sup>

The prostitution of charitable institutions to the base use of mean but comparatively rich people is almost universal, but we can see that it will need a great agitation to put a stop to it. The lower middle classes are strongly interested in maintaining it, and so are the managers of hospitals, who gather in the subscriptions, while the benevolent public are, in a general way, such fools that they do not know and never think to what purpose they give their money, or whether they are doing good or harm thereby. If the system is ever to be reformed, the medical profession must work out its own salvation, and here again immense difficulties stand in the way. The medical officers of hospitals, though many of them have to deny themselves and their families domestic comforts for want of paying patients, find themselves compelled to "stand in" with the system lest they might forfeit the support of the secretarial wire-pullers of the hospital, and thus lose the position which is essential to their professional existence.

The true remedy for hospital abuse—a remedy far distant and difficult of attainment—is to educate the wealthy benevolent up to the comprehension of the fact that, in contributing to hospitals, they very commonly are doing mischief,

helping administrative corruption, throwing their money away, encouraging mean and unscrupulous people, depriving the really poor whom they desire to serve, of the benefits of hospital treatment, and lending themselves to gross injustice to the said poor and to the medical profession. Those who have undertaken the agitation against hospital abuses cannot too soon lay to heart the conviction that it is totally useless for them to attack public sentiment at the medical side. The wealthy benevolent care not one straw for the general practitioner or his grievances; neither do the comfortably selfish middle classes; neither do the managers of hospitals, who make a good thing out of the existing system; neither do the opulent consultants who derive Pecksnifian glory from the services which they render, ostensibly to the sick poor, but really for their own advantage. The only thing the indolent benevolent care about is the disposal of their money, and few of them at present take the trouble to bestow a thought even upon that.

#### Intestinal Autointoxication.<sup>6</sup>

The term autointoxication has undergone many changes of meaning in the short time since it has been introduced into medicine. It has as yet not been definitely agreed upon. Autointoxication through the intestinal canal consists of the retention of normal and abnormal material in the intestines. The result of the stagnation of such material is the decomposition, putrefaction and fermentation of the ingesta. The products of carbohydrate fermentation give formic, butyric, lactic, acetic and succinic acids, gases, et cetera, while the products of albuminous decomposition give  $\text{NH}_3$ ,  $\text{CH}_4$ ,  $\text{H}_2\text{S}$ , leucin, cystin, phenol, indol, skatol, tyrosin, acetone, et cetera.

With the superabundant production and the retention of all these substances in the intestinal tract, a series of symptoms presents itself, suggesting a diseased condition of the digestive tract, of the respiratory system, of the circulation, of the kidneys and, above all, of the nervous system. There is no positive proof that these symptoms have some definite relation with the poisons retained in the intestinal tract. Still, since a condition of autointoxication clearly exists, inasmuch as the symptoms disappear when the poisons are removed, we may safely assume that the symptoms presented are due to autointoxication.

It is a well-known fact that there is a certain relation between affections of the digestive tract and diseases of the nervous system. The ancients went even so far as to charge certain forms of vertigo to disturbances of digestion. The term hypochondria, originally the name of that part of the body situated between the xiphoid cartilage and the navel, implies that it was supposed

<sup>4</sup> VON LEUBE in *Medical Record*.

<sup>5</sup> Editorial, *Medical Press and Circular*.

<sup>6</sup> CHARLES D. AARON M.D., in *Physician and Surgeon*.



that the abdominal cavity was the seat of the pathologic condition.

Intestinal autointoxication can become manifest through the nervous system, through a derangement of metabolism, through the circulatory system and through the skin. Vertigo, which appears also in other forms of poisoning as through alcohol, nicotin and various alkaloïds, is a constant symptom of intestinal autointoxication. We also find headache, pressure in the head, neuralgia and cerebral vomiting. Psychic disturbances are often particularly marked. Depressed spirits, feeling of disgust, aversion to work, disinclination to social intercourse, and melancholia are observed in these patients. All symptoms which are present in neurasthenia are present also in intestinal autointoxication. While we were formerly inclined to look upon the disturbances of digestion in neurasthenia as secondary symptoms, experience teaches that the symptoms of the digestive tract precede neurasthenia. In certain cases there is a disturbance in the organs of sense, darkening of the field of vision, hallucinations, ringing in the ears and deafness.

Bouchard has demonstrated the toxicity of the urine in neurasthenic cases and it is absolutely certain that poisonous products get into the blood. Indicanuria nearly always suggests autointoxication. Constipation is not necessarily coincident with autointoxication, for it has been shown that the more fluid-like the contents of the intestine are, the more rapid is the absorption of poisonous material. Accordingly, the urine in diarrheal conditions has been found to be most poisonous. In cholera the absorption of toxins is continuous despite frequent energetic evacuations of the bowels. It appears that patients in states of autointoxication feel better when constipated than when their intestines are filled with semi-solid materials. Again, we have an autointoxication in an obstruction of the bowels, for the natural outflow of the waste material is arrested, excretion is imperfect and absorption of the poisonous materials which are present takes place quite rapidly. The eclampsia of children with digestive disturbances is more easily explained in terms of autointoxication than on lines of the reflex theory.

Boix proves that in addition to alcohol as a cause for hepatic cirrhosis, there is an autointoxication of gastro-intestinal origin which frequently causes cirrhosis. The author demonstrates that there is a peculiar form of hypertrophic cirrhosis which is caused by the passage through the liver of toxic substances produced in the alimentary canal, and he calls this a dyspeptic liver, so as to differentiate it from alcoholic liver, which designates also another form of cirrhosis.

To the class of cases in which we have a derangement of metabolism due to autointoxication

we may add many cases of chlorosis. In certain cases of chlorosis we resort to antifermentative therapy and this implies that we believe that there is some pathologic connection between it and autointoxication. Bouchard, Rosenbach, Couturier and others have shown that intestinal autointoxication has considerable significance in chlorosis.

Such disturbances of the circulation as excitability of the heart, tachycardia, and various other forms of vasomotor disturbances are often due to intestinal autointoxication.

Autointoxication frequently becomes visible in certain kinds of skin affections, such as urticaria, which is produced in many cases by the eating of lobsters, cheese, et cetera. It was formerly regarded as idiosyncrasy, but we know that it is an intestinal autointoxication. Pick, of Vienna, has proven that attacks of urticaria can be prevented in susceptible patients by cleansing the intestinal tract. Singer has verified this and adds that there is always an increase of indican in the urine.

Asthma dyspeptica, which consists chiefly of dyspnea, can be attributed to autointoxication, but this has not as yet been proven. The symptoms of collapse produced by obstruction of the bowels, either acute or chronic, are no doubt due to autointoxication. The kidneys being compelled to eliminate the poisons which have been absorbed through the intestinal tract, are in this way injured. Albuminuria found in an intestinal stenosis and the disappearance of the albuminuria, when the obstruction is removed, are probably due to autointoxication.

Posner has even gone so far as to maintain that nephritis may be superinduced by bacteria which, having been absorbed by the intestines, have found their way to the kidneys and there cause an inflammatory condition. The bacillus coli communis especially is apt to behave in this way.

#### Treatment of Cancer by Interstitial Injections of Alcohol.<sup>7</sup>

The results obtained in a case of cancer of the naso-pharynx by a well-known clinician, Dr. Kuh, of Chicago, and the fact that the correctness of the diagnosis had been sustained by so competent an observer as Dr. Senn, adds much weight to the evidence already collated in favor of alcohol as a curative agent. The search for pathogenic micro-organisms, antitoxins, etc., has so captivated the attention of investigators during the last decade that remedial measures of a more prosaic kind have been relegated to a position well in the rear. Such has been the fate of alcohol as a remedial agent in the treatment of cancer. Although many years have elapsed since

<sup>7</sup> CHAS. E. DE M. SAJOUS, M. D. Editorial, *Monthly Cyclopaedia of Practical Medicine*.



attention was first called to its effects upon neoplastic tissues, no interest has been awakened and it lies practically dormant, awaiting its turn to enter the clinical arena. Are its claims sufficiently valid to merit thorough test by clinicians? It is safe to state that, if tuberculin had had to its credit but half of the *bona fide* points already noted in favor of alcohol in the treatment of cancer, it could have withstood the test of time.

Over twenty-five years ago, Karl Schwalbe, having obtained satisfactory results from interstitial injections of alcohol in the treatment of benign growths, argued that if alcoholism could give rise to the formation of new connective tissue in the liver and thereby induce atrophy of the parenchyma, including its vascular supply, malignant tumors should yield to the direct action of alcohol in the same manner. Hasse, of Nordhausen, after a careful analysis of the whole question, reached the conclusion that injections of alcohol around the base of the growth would suffice. A zone of new connective tissue would be formed; constriction of the blood-vessels and lymphatics would necessarily follow; and, the afferent and efferent channels being thus partially or entirely closed, the nutrition of the growth would cease, while the same mechanism would serve to close avenues for the passage of metastatic elements. His results verified the correctness of his views, and, of eighteen cases of carcinoma of the breast treated by him, fifteen were cured, the three cases lost being hopelessly advanced when the treatment was instituted. Recently he showed that the method insured radical results by reporting the histories of three cases treated in 1878. Although nearly twenty years had elapsed up to the date of his paper, the persons treated were in perfect health, no recurrence having taken place. A connective tissue capsule had formed around each growth, causing obliteration of the blood-vessels and contraction of the neoplastic tissues.

In other directions, results were also met with tending to sustain the value of the method. Vulliet, of Geneva, used alcohol in advanced cases of uterine cancer and obtained marked relief, which he ascribed to the local ischemia produced. In our country, J. W. Young, of Bloomfield, Ia., employed alcohol in various varieties of tumor. Rapid reduction of the size of the growths was produced; but he ascertained that, if too much alcohol were injected at one time, sloughing of the growth and general intoxication of the subject would follow. With ordinary caution, however, he was able to avoid these untoward effects by injecting ten to twenty minims into one side of the tumor, then as much in another place, etc., this being continued until every part of the growth had become infiltrated by the alcohol.

Going a step further, we are brought to a case

reported by Edwin J. Kuh, of Chicago, the diagnosis of which was confirmed clinically by Senn, and furthermore by a microscopic examination which allows of no reasonable doubt. The case was one of primary cancer of the nasopharynx in which the injection of unfiltered erysipelas prodigiousus toxins had failed. In view of the inevitable fatal outcome, injections of alcohol were begun on October 14, 1896, with three minims of absolute alcohol, the dose being rapidly increased to thirty minims. The reduction in the size began after the seventh injection, and after the eleventh but few remnants of the growth remained. After a dozen more injections the needle would not penetrate into the tissues capable of retaining the alcohol, and after a few additional attempts, at intervals of a week or longer, they were discontinued. In February, 1897, the naso-pharynx was found, both by inspection and palpation, to be entirely free.

This case added to the others described establishes alcohol on a basis seldom equaled by any agent proposed. In order to obtain a successful result, however, the treatment must be carefully conducted.

In the cases reported as cured by him, Hasse injected a mixture of thirty parts of absolute alcohol to seventy parts of water, twice a week around the tumor, as well as into any infiltrated glands. The quantity injected varied according to the size of the neoplasm and sometimes reached twenty Pravatz syringefuls. The only inconvenience observed was pain and, occasionally, slight intoxication. In order to avoid making the injection into a blood-vessel Hasse inserted a syringe-needle deep into the tissues, then unfastened it, leaving the canula in place. He then waited a moment; if the blood did not issue from the canula he readapted the syringe and made the injection; but if blood did flow out, he removed the needle and made another puncture elsewhere. Under the influence of these injections the tumor diminished in size and soon became less painful. The treatment should be continued for some time after apparent cure, at intervals more and more prolonged.

Pain seems to be the only untoward effect of the procedure. Local hypodermic injections of water are known to cause anesthesia. This or some other local anesthetics might be employed to obviate the only feature that might cause the sufferer to refuse assistance. General anesthesia might even be resorted to for the first injections in sufficiently robust subjects until the treatment has itself reduced local tenderness.

The remarkable increase of cancer during the last half-century need hardly be emphasized. The nature of the affection sufficiently sustains an earnest plea that alcohol be given the faithful trial it seems to merit.

### Gangrene of Leg in an Infant Four Weeks Old, with Amputation and Recovery.<sup>8</sup>

The patient was exhibited. The infant was born at full term from healthy parents. Five days after birth symptoms of gastro-intestinal disturbance appeared. On the tenth day onychia of the fingers with yellow crusts formed. The cord separated on the twelfth day leaving a broad red circle of inflammation on the abdominal wall. On the fourteenth day both legs from the hip down became blue. By the twenty-first day the cyanosis of the right leg was clearing up, while the left leg became darker and swollen. Five days later small blebs appeared on the left leg with a very fetid odor. In the right leg the cyanosis had disappeared except for a small spot on the buttock. On the thirty-second day a line of demarcation had formed over the scar of the left tibia with separation of the tissues. Amputation was performed at the middle of the thigh, the femoral ligated, no other vessels bleeding. There was no shock after operation, and the recovery was uneventful.

### Affections of the Conjunctive and Cornea Observed in the Acute Infections Diseases of Children.<sup>9</sup>

The author stated that the catarrhal symptoms so frequently noted in the eyes during the course of the infectious diseases are local manifestations of the general disease, and their presence may be of such prominence as to react upon the health of the child, and, if such symptoms are not treated there may result permanent damage to the ocular structures interfering with the vision in after-life. The author described the special symptoms which occur in small-pox, measles, scarlatina, pertussis, influenza, and typhoid fever, and laid stress upon the development and results of phlyctenular ophthalmia as commonly produced during the course of these diseases and prolonged during convalescence. He then urged that early and prompt treatment be instituted—there should be frequent cleansing of the conjunctival sac daily, using warm, bland solutions, and set forth the necessity of strict hygienic regulations, together with the maintenance of tonic and alterative treatment throughout the entire period of convalescence. In thus caring for the eyes he is of the opinion that the high percentage of impaired eye-sight resulting from opacities and distortions will be greatly reduced.

### A Clinical Method for the Estimation of Breast-Milk Proteids.<sup>10</sup>

Two "milk burettes" each containing 5 c.c.

<sup>8</sup> DR. ROBERT G. LECONTE before the Philadelphia Pediatric Society.

<sup>9</sup> DR. BURTON K. CHANCE before the Philadelphia Pediatric Society.

<sup>10</sup> DR. GEO. WOODWARD before the Philadelphia Pediatric Society.

of milk, are subjected to a temperature warm enough to rapidly sour the milk and allowed to remain in this warmth until a distinct precipitation can be seen. The burettes are then cooled in water, the milk serum withdrawn into two graduated tubes, 10 c.c. of Esbach solution added, the tube shaken, centrifugated until the reading is constant. This reading expresses in percentage the amount of total proteids in the milk.

The most satisfactory "milk burettes" have a glass pinch cock or valve and a narrow exit tube about one inch long. A temperature of 95°F. to 100°F. is the most rapidly effective to produce fermentation. This is conveniently obtained by placing the tubes in a burette stand and the stand in contact with a radiator or steam pipe leading to a radiator.

The time required to obtain a distinct precipitation of casein is from eighteen to twenty-four hours. The milk has then separated into an upper layer of viscid yellow fat and a lower layer of fluid milk along the sides of the tube and at the bottom is a granular precipitate.

The cooling of the milk increases the viscosity of the fat and facilitates its separation from the milk serum. The milk serum is received into 15 c.c. graduated tubes, the solution of picric and citric acid added up to the 15 c.c. mark, the mixture stirred with a glass rod and placed in a hand centrifuge.

The amount of centrifugation required is in direct proportion to the care used in separating the fat. If fermentation be watched and the separation made as soon as the casein precipitate is distinctly present the centrifugation to a constant reading may be quickly accomplished.

Twelve analyses by centrifuge, each checked by the Kjeldahl method as adopted by the Association of Official Agricultural Chemists, showed close correspondence of results. In one case the Kjeldahl result was .65 per cent. below that given by the centrifuge; in a second case, 0.3 per cent. In all the other cases the difference was less than 0.25 per cent.

### Nature and Treatment of Obesity.<sup>11</sup>

The disease is one of nutrition in which there is an excessive formation and accumulation of fat, at first with the simultaneous increase of azote, later with diminution of albuminoid substances and an increase in the quantity of water in the system. The unequal increase in the volume of the body, resulting from the accumulation of fat and the functional disturbance of some of the organs, especially the respiratory and circulatory suffice to give it the pathologic character of obesity and to cause it to be classed among the diseases of nutrition. The causes of the increased formation and accumulation of fat are in the incomplete destruction of

<sup>11</sup> OERTZ, in *Wiener Medizinische Wochenschrift*.

alimentary substances ingested, and also in the adipogenous aliments through the muscular and other physiologic functions, and in the accumulations of these substances under the form of fat in some regions of the body.

Some etiologic conditions have a real importance. These are: Hereditary predisposition, the anomalies of antagonistic articles of nutrition, the constitution and the physiologic temperament. The most important causes are errors in diet, resulting in indigestion, in a superabundance of inappropriate articles of nutrition, and an insufficient combustion.

The quantity of liquid imbibed and certain endemic conditions have a marked influence on the destruction of fat.

Oertel points out two forms of obesity, the plethoric and the anemic, both of which pass quite rapidly into a third form known as the hydremic. The first is always a form resulting from hyper-alimentation, which influences in a special manner the heart and the circulation. The anemic form is caused by too small a quantity of hemoglobin, in consequence of a diminution of the process of oxydation. Here also the cardiac insufficiency produced by the accumulation of fat in the heart, or on its surface, has a very important influence; it is important to mention also the arterio-sclerosis, atheroma and diabetic adipogene. The accumulation of water is also a correlative of the impoverishment of the organism by diminution of albuminoid substances. Serous plethora is caused by progressive disturbance of the circulation, resulting from insufficient cardiac action and from insufficient action of the urinary organs. The obesity often ends in paresis of the heart—fatty degeneration, arterio-sclerosis myocarditis; from cerebral trouble—apoplexy, hemorrhage, thrombosis, embolism—more rarely from diabetes complicated with coma and marasmus.

The prognosis is always doubtful. In a prophylactic point of view there are two classes of persons to be considered: those who have a hereditary tendency, and those who have suffered from obesity but have been relieved of the corpulence by medical treatment.

The treatment should be directed to two objects: to prevent the continued formation of fat, caused by the articles of diet, and to increase the combustion of the accumulated fat. The treatment is then hygienic and mechanical.

In the plethoric form, Oertel advises an increase of the albuminoid substances, a lessening of the quantity of articles that increase the adipose tissue and little restriction in the use of liquids.

The anemic form requires, on the contrary, a restriction of the liquids. In the aged, in whom the obesity has a tendency to decrease, the hydremic form must be opposed by the ingestion of an abundance of albuminoid material, of fat-

producing substances and the hydrocarbons. The increase of articles belonging to the latter class and the diminution of liquids prevent the too rapid destruction of fat.

### Occupational Mortality.<sup>12</sup>

The valuable tables contained in the report of the varying rates of mortality prevailing among men engaged in different occupations, and Dr. Tatham's conclusions drawn from the facts and calculated rates of which they consist, are based upon more than half a million of deaths that occurred during the three years 1890-92 among the male population of England and Wales above the age of 15 years. The years of life exposed to risk during these three years were nearly 27 millions. With such an extended basis of facts the calculated rates dealt with in this report acquire a very exceptional degree of trustworthiness.

The main conclusions in the report are based upon the death-rates of males aged between 25 and 65, the period during which the effect of occupation is assumed to be most marked, and in which the proportion of occupied males is largest. Taking 1,000 to represent the mortality of all males at these ages in England and Wales in 1890-92, the comparative mortality figure for all occupied males was only 953, whereas the residue, classed as unoccupied males, gave a mortality figure of 2,215. This alarming mortality of unoccupied males is, however, susceptible of easy explanation. The deaths of occupied males at these ages in the three years numbered 250,184, while the deaths of unoccupied males were but 27,299, and included all the deaths at these ages in lunatic asylums, all the deaths in workhouses, hospitals, and prisons of inmates aged between 60 and 65 years, in addition to those of persons retired from business, living on private means, or pensioners. The death-rate among this incongruous aggregation of so-called unoccupied males has, it should be mentioned, no real statistical value, and its constitution fully accounts for the fact that the comparative mortality figures for all occupied males is so distinctly below that for all males in England and Wales. On the other hand, it should be noted that the separate treatment of this unoccupied class does not materially depreciate the value of the comparative mortality figures for the several occupational headings, as there is no good reason for believing that the proportional contribution to this unoccupied class from the males engaged in the several occupations varied to any considerable extent.

This report tells us that while the comparative mortality figure for all occupied males in England and Wales was 953, it was only 687 in agricultural districts, while it was 1,147 in London and 1,248 in industrial districts. This very wide difference undoubtedly points broadly to the

<sup>12</sup> Editorial *British Medical Journal*.



greater healthfulness of agricultural than of industrial occupations. It also points, however, to the existence of sanitary and social factors which should be constantly borne in mind when drawing inferences from these occupational mortality statistics. It is obvious that the difference between the comparative mortality figure for "farm laborer, farm servant" (632) and that for "general laborer" in industrial districts (1,509) is not so much the effect of occupation as of housing, feeding, and of sanitary condition in the broadest sense of that term. While noting, for instance, that "coster-mongers, hawkers" have a comparative mortality figure of 1,652, we should not forget that this excessive death-rate is due far more to insanitary conditions of life than to inherent unhealthiness of their occupation, which under other conditions of living would inevitably show widely different results. These considerations should not be forgotten, as they more or less affect the comparison of the mortality statistics of all occupations.

The clerical profession maintains its position as the occupation showing the lowest death-rate, with a comparative mortality figure of 533; the comparative figure for "school-master, teacher" is not much higher (604); while it is 821 in the legal profession, and 966 in the medical profession. The figure for law clerks is 1,070, and for "musician, music master" 1,214; the latter high figure is probably in part due to the inclusion of a considerable proportion of itinerant musicians. Farmers and gardeners show remarkably low mortality, their figures being respectively 563 and 553. All occupations connected with the liquor traffic show still higher mortality figures than those to which Dr. Farr and Dr. Ogle called attention in previous Decennial Supplements. The figure for brewers is 1,427, for innkeeper, publican, etc., 1642, and for inn hotel servant 1,725. Among the shopkeeping class, tobacconists, milk-sellers, cheese-mongers, and drapers, showed mortality figures exceeding 1,000, whereas the figure was 833 for booksellers, 803 for coal merchants, and 664 for grocers. The mean figure for all shopkeepers did not exceed 859. Butchers, hatters, hair-dressers, and "tallow, soap, glue, etc., manufacture," all showed mortality figures ranging from 1,096 to 1,109. The excessive mortality of cutlers, file makers, scissor makers, and nail makers, noted in previous periods of observations, was still higher in 1890-92. Among other industrial occupations, slaters and tilers, wool, silk, and cotton dyers, potters and glass manufacturers, again showed marked excess of mortality, and tin miners, coalheavers, coster-mongers, and chimney sweepers gave figures varying from 1,311 to 1,652.

The most novel, and at the same time, perhaps, the most interesting feature in the report is the elaborate and scientific treatment of the relative incidence of the principal causes of death upon

those engaged in the different occupations. The age, occupation, and cause of death of each of the more than half a million males aged above 15 who died in the three years under observation were tabulated in combination. The tables in the report therefore show not only the comparative mortality figure for all causes, but also the relative proportions of this total mortality which was due to each of twelve of the principal causes of death. Not only is the mortality figure for all causes corrected for the varying age constitution of those engaged in the various occupations, but by an ingeniously-devised method, a comparative mortality figure for each separate disease has been calculated for each occupation, which accurately takes account of the varying age proportion prevailing in the different occupations. The effect of this correction of disease mortality for variations of age proportions is obviously most marked upon the comparative mortality figures for such diseases as phthisis and cancer, the death-rates from which vary so widely at different ages. As an example, it may be noted that the uncorrected mortality figure for inn servants from phthisis and cancer is 572 and 41 respectively; but after correction for abnormal age proportion, the phthisis rate is reduced to 476, and the cancer rate is raised to 65. In other words, the low mean age for inn servants produces without correction an unduly high rate of mortality from phthisis and an unduly low rate from cancer.

Thus corrected for the disturbing influence of varying age proportions in the different occupations the comparative mortality figures for liver disease, diabetes, urinary diseases, gout, as well as definitely certified alcoholism, among those engaged in occupations connected with the liquor traffic, acquire a considerably enhanced value, and accentuate the warnings conveyed in the reports previously prepared. It is shown that if we take 100 to represent the mean mortality among all occupied males at these ages from each cause of death, the comparative mortality figures for publicans, innkeepers, and their servants is 723 from alcoholism, 600 from gout, 271 from diabetes, 644 from diseases of the liver, 210 from urinary diseases, and 207 from suicide.

The figures bearing upon the fatal effects of breathing dust-laden air, or air fouled in other ways, have similarly acquired greatly increased value from the careful elimination of the disturbing influence of the varying age proportions of persons engaged in different occupations. Taking 100 to represent the combined mortality from phthisis and diseases of the respiratory organs among those engaged in agricultural occupations, it is shown in a special table in this report that the comparative mortality figure from these diseases among those engaged in occupations which cause dust of various kinds, ranges upwards to 373 for file makers, 407 for cutlers and



scissors makers, and 453 for potters and earthenware manufacturers. The effects of the inhalation of impure air, although not necessarily dust-laden air, is shown in another table, from which it appears that the phthisis mortality figure, which is 106 for agriculturists, rises to 301 for hatters, 322 for musicians, 326 for printers, and 325 for bookbinders; each of these occupations showing also a marked excess of mortality from diseases of the respiratory organs.

This report adds much of interest in connection with the evidence, direct and indirect, of lead poisoning among lead workers, file workers, plumbers, painters, glaziers, potters, glass makers, etc. Indeed the report teems with information and facts deserving careful study at the hands of all students of the hygiene of occupations.

Rightly used the statistics in the report cannot fail to afford practical help in the direction of lessening the dangers incidental to certain occupations. In order, however, to avoid false or too arbitrary deductions from the figures, it is absolutely necessary that the many-sided aspect of the subject dealt with, and the variety of factors that contribute to the results, should be constantly borne in mind. Above all, it should be remembered that while the report bears abundant evidence of the utmost possible skill and care in the treatment of the figures, the results must, on account of the source and nature of the facts dealt with, be accepted as relatively rather than as absolutely accurate. While the arithmetical processes employed in the treatment of the collected data secure mathematical accuracy in the calculated rates and percentages, it would answer no useful purpose to shut our eyes to the inevitable defects of the data recorded in the census schedules and the death registers concerning the occupations and causes of death of the male population of England and Wales.

### How Shall an Infant Be Nourished Whose Father is Syphilitic.<sup>12</sup>

The author first discusses the question: May we allow a child, whose father is syphilitic—the mother being healthy—to wet-nurse without endangering the health of the nursing woman?

1. It may be so nursed where the following favorable conditions are present: if the health of the father is perfectly satisfactory; if the syphilitic infection has occurred a long time ago, say ten years, and if it was benign, only manifesting itself in a small number of specific symptoms, where no syphilitic phenomena have appeared during the last eight or nine years, and where treatment has been pursued in a systematic manner for a long time.

2. It should not be wet-nursed in the so-called intermediary cases, where the danger of infecting the nurse and the chances of not doing so are about equal; for example, the father has been syphilitic for about three years, the symptoms neither very slight nor severe, the last symptoms having occurred only a year ago; treatment having been carried out systematically for a few months only. In these cases the chances for the immunity of the child may, of course, be great, but the possible infection of the nurse cannot be positively excluded. In many cases, however, the rejection of a nurse is equivalent to the choice of feeding the syphilitic child from the breast of the mother or with artificial food. In those cases in which it is impossible for any reason for the syphilitic child to nurse from its mother nothing remains to be done but to bring it up on the bottle.

Fournier also enters a protest against the practice of allowing children of syphilitic parents to nurse from a woman, advocating taking them from the breast as soon as the slightest symptoms develop. The reason for this protest is that Fournier believes the necessary adequate supervision to be practically impossible, as small lesions of the mouth or nose in the infant may be overlooked by the physician in spite of a careful examination, and because experience has proven that in spite of this careful supervision the nurse has been infected.

Another question to be answered is how the physician is to bear himself when the father of the child has previously made arrangements with the nurse in case the latter should be infected. Fournier considers that the physician's concurrence in such a case is undignified, and that he is not absolved in this compact by law. Leaving aside the question of law, however, such an acquiescence is neither honest nor moral, for the reason that the nurse is not aware of the magnitude of her danger.

It is the physician's duty, therefore, to protest against the consummation of such an arrangement, and if necessary, to withdraw in order not to compromise his dignity. We will therefore be forced in most cases to counsel the bringing up of the child at the mother's breast, even should it be certain that individual exceptions to Colles-Baumé should occur. Fournier himself is not cognizant of any such exceptions in his own experience. The husband, in such a case, should, however, consider it his duty to tell the mother the truth, in order to induce her to nurse her own child.

For the rest Fournier, referring to the statistics lately published by Budin, and to his own experience, remarks that the latest advance in the artificial feeding of infants has greatly increased the chance of raising syphilitic children.

1853-1898

# Medical and Surgical Reporter.

ISSUED SEMI-MONTHLY BY

MEDICAL AND SURGICAL REPORTER CO.

EDITORIAL AND PUBLICATION OFFICES:

No. 1026 Arch Street, Philadelphia, [Pa.

No. 41 North Ninth Street, Lebanon, Pa.

HAROLD HAVELOCK KYNETT, A.M., M.D., Editor.

G. C. CLIFTON HOWARD, Assistant Editor.

A. L. BENEDICT, A.M., M.D., Buffalo, N. Y.

**TERMS:**—One year, three dollars, in advance. Subscriptions may begin at any date.

**REMITTANCES** should be made by Draft, Money Order or Registered Letter, payable to the order of the MEDICAL AND SURGICAL REPORTER.

**CONTRIBUTIONS** of value to the medical profession are invited from all sources. Reprints will be furnished of original articles, contributed exclusively to the MEDICAL AND SURGICAL REPORTER. Orders for reprints must accompany MSS. To ensure the return of contributions not made use of writers must enclose return postage.

**SEND ALL COMMUNICATIONS** to the editor 1026 Arch St., Phila., Pa. THE MEDICAL AND SURGICAL REPORTER will not be responsible for the opinions of its contributors.

APRIL 16, 1898.

## ASEPSIS OR ANTISEPSIS.

The battle between the followers of "Listerism" and the advocates of unadulterated cleanness is always being waged, with fortune varying according to the relative intensity of utterance of the opposing forces. Perhaps because the spirit of war is abroad in the land there is recently a new outbreak, which this time seems to leave the partisans of soap and water in possession of the field to the discomfiture of the believers in the apotropaia of mercuric chlorid and potassium permanganate.

Criticism of the methods used and the results obtained in the Woman's Hospital of New York, was replied to by Dr. T. Gaillard Thomas, giving results of 153 cases of abdominal section with a mortality of 15.03 per cent. and a comparison with seven other hospitals, all showing a greater mortality ranging so high as twenty-five per cent. in the Boston City Hospital. A copy of this was sent to Lawson Tait, who comes to the fore in vigorous English as follows:

BIRMINGHAM, December 14, 1897.

SIR:—I have just had sent to me a copy of the Forty-first Annual Report of the Hospital for Women in New York, containing an address by Dr. T. Gaillard Thomas, the greater part of which purports to answer some animadversions which are alleged to have been made concerning

the results of the work in that institution. At the conclusion he puts to the critics Shylock's question, "Are you answered?"

I have not been one of the critics, and only because the facts never came under my notice; but on their behalf, and on behalf of suffering humanity, I say to Dr. Thomas that they are not answered, but that, on the contrary, he makes out a most deplorable state of matters.

He puts forward a group of figures which show that in seven large selected hospitals in America the results of abdominal section run from twenty-five per cent. in Boston City Hospital down to 15.03 per cent. in his own institution. Of this collection of statistics I have only two things to say, that the whole thing is deplorable, and must be remedied; and that the mortality in the New York Women's Hospital is "murderous," as Mathew's Duncan used to put it.

He certainly does not make the matter any better by pointing out that during a period of thirteen years the mortality of his hospital has been 22.43 per cent., and that this triumphant result has been due to the introduction of "antiseptics, the sheet anchor of the surgeon." This makes me more than ever thankful that I discovered the fallacy of this co-called antiseptic craze early in my career.

I enclose with this letter a copy of the Twenty-third Annual Report of the Birmingham and Midland Hospital for Women, for 1893; and I select this year for three reasons. The first is that it was the first year in which no work was done by myself, and the bulk of it was done by two of my former assistants, and because it was an exceptionally bad year.

As to the statistics themselves, let me say that, like those of the New York Hospital for Women, in Dr. Thomas' own words, "the surgical staff of this hospital has absolutely nothing to do with the making of its statistics." Each case is entered by an officer responsible to the lay committee, and each fatal case is investigated by a special pathologist altogether independent of the operating staff. At the end of each year each operator has to defend his facts before his colleagues on a committee upon which also sit the Chairman and Secretary of the Managing Committee, and a perfect audit is made and signed. This document is published with a table upon which every case is entered under the distinguishing initial of its own surgeon, and with such details that any case can be easily identified. Any cooking of the statistics is an absolute impossibility, and only the most trivial errors have ever been detected.

In 1893 the abdominal sections numbered 176 (against 153 in New York of 1894), with a mortality of 6.2 against 15.03 in the New York Women's Hospital.

Another table is given of 1,350 cases of ab-

dominal section performed almost entirely by Dr. Savage and myself from 1884 to 1893, with seventy-five deaths, a mortality of 5.5 per cent.

During these years I did all my work on plain soap and water, having abandoned every trace of the varying absurdities of Listerism two years before. Dr. Savage followed Lister in fashion of his own, varying from time to time. The work was fairly well divided, as also was the mortality; and, with the most careful reckoning of the figures, the verdict against Listerism must be, in Scotch fashion, "not proven," for, with its complete absence, my results were no worse, and, with its partial presence, Dr. Savage was no better.

What can Dr. Thomas have to say to this?

I have only to say that his results show that there is something radically wrong with his hospital, and that the medical profession of America, advancing as it is beyond the progress of our art in all other countries, cannot afford to let matters go on as they are.

If I may answer in one word the question which will of course follow what I have said: What is the cause of your success? I say emphatically, the absolute segregation of our patients and close attention to every detail constitute the whole of the mystery.

That there is an inevitable mortality in abdominal section I think is certain. That two men working in the same place, with the same material, should bring it down during ten years to 5.5 per cent. in a continuous consecutive series of 1,350 cases shows that the inevitable mortality is pretty nearly reached. That a removable mortality of more than three times that amount should be allowed to remain as the minimum to be reached in America cannot be admitted for a moment.

That even now the low mortality we have had in Birmingham is probably not the inevitable mortality, is, I think, almost proved by a little figure twisting; for if we take out four bad years, 1884, 1889, 1890 and 1893, we find 553 cases with a mortality of 8.5 per cent. But in six good years, 1885, 1886, 1887, 1888, 1891 and 1892, we had 797 cases with a mortality of 3.5 per cent. I think this latter is nearer the inevitable, and that higher mortality than that is due to causes entirely removable. All such causes should be earnestly sought for, and removed at any cost.

I am, yours truly,

LAWSON TAIT.

Mr. Tait pays a most distinguished compliment to general medical advance in this country, but evens matters by the whole-souled enthusiasm with which he criticizes individual methods. Many of his points are well taken, and his conclusions as to the small percentage of "inevitable mortality" in abdominal section give food for thought.

Still there is another view of the matter which does not seem to have been taken into consideration and which is without doubt of some importance in final statistics. It may be safely asserted that the average English woman is of more phlegmatic temperament than her American sister, and is possessed of greater physical endurance. She bears operations better, and reacts more readily, feeling shock to a much less degree. When even the slightest attention is given to the proportionate effect of shock upon the statistics of operation, it will be seen that this is no inconsiderable factor in results.

Again, climate has its effect upon physical characteristics, as it has long been noted as a curious fact that even in experiments upon the lower animals far more satisfactory results can be obtained abroad than here, owing to the comparatively small vascularity of English and Continental animals. This is also true of man, the same operation on a foreign subject, and particularly upon an English subject being far dryer and thus less subject to infection. Point for point the "bloody" operation is far more subject to possible after infection.

It is not at all sure that the difference in the figures alluded to in this controversy is due solely to sepsis, and hence that such wholesale denunciation is warranted or that the use of antiseptics is *per se* objectionable.

We conclude that the controversy is not yet finally settled.

---

The diagnosis of limitation of the cancer to the rectum, even when the tumor is within reach of the finger, may, as a matter of fact, be extremely difficult, and indeed impossible. We agree with Hochenegg, therefore, in his assertion that the case is only cleared up, and radical intervention can only be decided upon in certain instances, after a preliminary operation consisting in resection of the coccyx and of the ala of the sacrum.—*Quenu and Hartman.*

---

It takes three to make a pair—counting in the clergyman.

At forty a man wishes he knew what he thought he knew at twenty.

Spinsterhood is often the flirt's punishment for contempt of court.

The best thing about Adam was his rib and that was removed to make a woman.—*Pub. Health Jour.*



## Abstract.

### LACERATED AND PUNCTURED WOUNDS OF THE GENITAL TRACT.\*

Lacerations and punctures of the genital tract are of much importance and interest. They may be slight and unimportant or extensive and grave.

The perineum suffers from injuries from within and from without. I conclude that these injuries from without are somewhat rare. The most extensive injury I have seen was due to a fall on a sharp portion of a bicycle, a portion of the external genitals being torn, the tear extending upward beneath the public arch above the erectile tissue near the clitoris, and bleeding very profusely. The patient was immediately removed to the hospital and made an easy recovery after a couple of weeks. Instances of severe laceration of the perineum from the goring of cattle, from falls on sticks and broken chairs, pitch-forks, from contact with nails in sliding down boards and balusters, are on record.

Two Toronto physicians saw a perineum completely lacerated into the rectum as a consequence of a first coitus. I have seen some extensive tears of the hymen, and on one occasion was forced to apply two or three ligatures to arterial twigs that were torn through during a first coitus. But such injuries to the perineum as a consequence of marriage are of rather rare occurrence. The lacerations occurring in the perineum are usually the result of parturition.

Some remarkable cases have been recorded in which one foot has come through the vulvar opening and the other has gone backward and protruded through the anus during the delivery of a footling presentation. Another case has been recorded in which the head was found pressing down on the perineum and the hand and the forearm were protruding through the anus. I have never seen such conditions. I have seen a child delivered through, and not over the perineum.

I have somewhat frequently met with cases of tear through the sphincter. I have operated on a large number of cases that have suffered from incontinence of feces for years. In one patient this incontinence had been going on for eighteen years. This was the worst laceration I have ever seen. It was necessary, in performing the operation, to isolate the rectum from a mass of cicatricial tissue in order to repair the old rent in its anterior wall. An enormous surface was denuded and the parts were then carefully brought together. Notwithstanding all the care exercised a leakage occurred, fecal matter es-

caped into the anterior portion of the wound, and septic infection resulted. By careful douching and the removal of one or two stitches I was enabled to curtail septic absorption and ward off danger. The wound healed by first intention throughout part and by second intention throughout the rest of its extent. The patient has now perfect control over the bowel and has a new vaginal orifice, something she has been doing without for eighteen years. She is restored to comfort. Operation had been attempted on two previous occasions by other surgeons, but they failed to obtain union.

I operated on another case that had been operated on three times before. The tissues had been pared away so that there was very little left to deal with. As a consequence it was necessary to make subcutaneous incisions in different directions to produce relaxation of the parts. Even then I was afraid that owing to the tension the stitches would not hold. They were passed very deeply and tied tightly, and the knees kept bandaged together. Much to my surprise the wound healed by first intention, and the patient now has complete control of the sphincter.

It requires very little union of tissue over the front of the rectum to give control of the lower bowel. For such extensive tears I am satisfied that the flap-splitting operation offers the best chances of success: firstly, because there is no loss of tissue, and even if the operation fails there is but a small amount of scar tissue left on the sensitive submucous tissues; and, secondly, because the stitches can be left in for such a length of time that if union does not occur by first intention a very good union will be obtained by second intention and the operation will prove a success.

Tears of the lower portion of the vagina have a tendency to implicate the perineum, while tears of the upper portion of the vagina have a tendency to implicate the cervix uteri. It is my opinion that these tears in the vagina occur more frequently than we think, judging from the number of cases I have seen in which large scars were left from old tears. Such scars are to be found chiefly in the upper portion of the vagina in the neighborhood of the cervix.

Lacerations and punctures of the middle portion of the vagina are rare. I have never seen a puncture of the middle portion of the vagina. I have seen lacerations as a consequence of the use of the midwifery forceps, and, in one case, as a consequence of the passage of the unprotected fetal head after the performance of craniotomy by a neighboring physician. A cut was made in the vaginal wall, I believe, by the sharp fetal bones. The patient died. I have performed the operation a number of times and have noticed the care required in the extraction of the head to prevent laceration of the maternal tissues by these sharp bones. Such tears are not

\*JAMES F. W. ROSS M.D., Toronto, Can., in *Am. Jour. Obst. and Gynecology*.



necessarily fatal *per se*. It no doubt frequently happens that the vagina is slightly torn during delivery and that the tear is entirely overlooked. During the performance of craniotomy it is advisable to leave the scalp as intact as possible, so that the bones may have a soft covering. Stripping back of the scalp should be avoided.

There is nothing that will prevent lacerations of the middle portion of the vagina (and, indeed, laceration of other portions of the genital tract) by the midwifery forceps so much as proper instruction during student days. I have seen many a mother torn by these useful adjuncts to our professional armamentarium. They are deadly weapons in unskilled hands. As a consequence of tears of the vagina, either in its middle or upper portions, a subsequent narrowing may take place, and this narrowing may be of considerable importance. The vagina may be so narrowed that coitus may be rendered almost impossible and future labors extremely dangerous.

Rupture of the middle portion of the vagina is not so fatal as rupture of the upper portion, and neither of them is so fatal as rupture of the uterus. The term applied to these ruptures is *colporrhexis*, a name given by Hugenberger to express the condition. Treatment of ruptures in this portion of the canal will depend upon the symptoms present. If there is hemorrhage the indication will be to stop it; if there is an invasion of sepsis the parts must be kept cleansed; if neighboring organs are implicated and the rectum of bladder is torn into, it must be repaired.

Puncture of the upper portion of the vagina is usually occasioned by an attempt to produce miscarriage. Sharp and unbending instruments are used and the point is forced upward through the vaginal wall into the surrounding tissues. I operated on one patient who had passed a pen handle up through the vaginal vault to the left of the cervix. She was suffering from an acute general peritonitis. On opening the abdomen it was found to be full of flocculent lymph with angry, reddened intestines and all the evidences of an acute septic peritonitis. The tubes and ovaries were both inflamed, and swelled to about three times the normal size as a consequence of the inflammation. There was no pus to be found in either tubes or ovaries. The patient died. As usual, she denied any interference with herself to the family physician, but, when cornered by close questioning, was forced to admit to me that she had injured herself in the way mentioned.

These injuries in the vault are usually to be found on the left side, owing, I think, to the fact that the patient uses her right hand in introducing the instrument. The instruments are more frequently passed through the vaginal vault than through the uterine wall. It is rather curious that such small punctures should give rise to such grave symptoms, even if the instruments

used are not clean. The reason why these instruments are forced through such a resisting structure is that the patients are rendered desperate by their condition and are determined to rid themselves of the products of conception at any price. It is difficult for many of them to find the cervix uteri, and still more difficult for the untrained hand to pass an instrument into the uterine cavity.

Lacerations of the upper portion of the vagina are usually due either to the extension downward of a tear of the cervix as the consequence of the use of the rapid dilator, or from manipulations with the hand introduced into the vagina, or an extrusion of the fetus through it. I have seen laceration through the cervix and through the vaginal wall to the peritoneal covering occur in my own hands as the result of rapid dilation of the cervix uteri with a Goodell dilator under deep anesthesia. The patient recovered without any bad symptoms, but not without causing a great deal of anxiety. Such accidents are rare, but may occur in the hands of the most skilful operator in spite of all the precautions and all the care that he can exercise.

The lacerations that occur as a consequence of child-bearing vary in their extent. I have seen scars left by old lacerations that evidently produced very few symptoms at the time of injury. A rough attempt to replace a prolapsed vagina has produced its rupture. A patient has been known to rupture her own vagina in this way. The rapid delivery of the head, especially where this rapid delivery is occasioned by the use of forceps, is liable to produce rupture of the vagina. Pathologic changes in the vaginal walls themselves assist rupture. A stenosis of the vagina, above which there may be a thinning of the tissues, will be liable to produce rupture, and ruptures are liable to occur through cicatrices, firm and non-elastic, left from previous tears. Rupture of the vagina has resulted as the consequence of an attempted inversion of the uterus. Some other curious cases are cited. One, for instance, in which ascitic fluid so distended the cul-de-sac of Douglas and pushed the vagina downward that it tore, and a retroverted uterus with intestines was forced through the opening. In such conditions the vaginal tissues must be friable and unhealthy. The bursting of a hematoma that may follow labor must not be mistaken for rupture of the vagina. In such a case the diagnosis can be made by the absence of prolapsed intestines. It will also be impossible to pass the hand up into the abdomen.

I have removed some very large fibroids from the vagina. On one occasion I found it necessary to divide the fibroid into halves before it could be delivered from the vaginal orifice by means of the midwifery forceps. There can be no doubt that if these manipulations be rudely carried out the continuity of the vaginal walls

will be endangered. Such manipulations must be undertaken with a great deal of care. Fatal rupture of the vagina during coitus has also been recorded.

I have recently had one case of laceration of the posterior wall of the vagina without any laceration of the cervix uteri, and extrusion of a full-time fetus through the tear into the abdominal cavity. The patient suffered from a pendulous abdomen. This condition was due to an extrusion of the intra-abdominal contents through separated recti muscles. The patient had arranged to have an old woman attend her. On a previous occasion a doctor who attended her stated that the uterus almost reached to the knees when she stood up. The pains were very severe, of a strong bearing-down character. While she was bearing down and pulling hard on the hands of her attendant everything went back and the pains ceased. They then waited for some time for the return of the pains, and, becoming anxious, sent for a physician, who found the patient moaning and complaining of a fixed pain at a point about three inches to the left of the umbilicus. On examination no fetal part could be discovered, but high up the finger touched something that felt like placenta, and it seemed as if this was loose and unattached. The fetal parts could be plainly felt by external palpation, and more plainly than usual. There was complete absence of shock. On examination the child's head was found presenting, with a tumor to the front and right side of the abdomen that felt much like a fibroid. The placenta seemed to be hanging down in front of the child's head, and it was supposed that perhaps this was a case of placenta previa, though the absence of hemorrhage was difficult to account for. The hand was passed in under an anesthetic, a foot was reached, and the child turned and delivered. After the child had been drawn down the portion that felt like placenta was examined and found to be intestine. The doctor concluded that rupture must have occurred, and felt uneasy lest during his manipulations he might have been the innocent means of inflicting the traumatism. As a consequence the patient was immediately removed to the hospital.

The tumor to be felt on the right side was discovered to be the uterus, empty and contracted. The mass hanging down felt very much like placenta, but, owing to the irregularity of the attachment and the inability to surround it, I concluded it must be a "bunch" of intestines. By drawing this down to the outlet of the vagina I found a portion of the rectum presenting. Owing to the fact that the appendices epiploicæ were considerably enlarged by a deposit of fat, and that the wall of the intestine itself was altered as a consequence of the pregnant condition of the woman, it was impossible to distinguish this portion of bowel from placenta by the sense of

touch. The patient was not collapsed, pulse was about 120, and there was no excess of hemorrhage. I removed the placenta from the neighborhood of the liver and decided to perform immediate celiotomy.

The patient was prepared, abdomen was opened, and the intestines were carefully drawn up out of the enormous rent involving nearly all of the posterior vaginal wall. Gauze was packed in to prevent subsequent hernia of the intestines, but it was found that this could not be prevented without the use of a very large quantity of gauze. Owing to the separation of the recti muscles, each effort to vomit had a tendency to force the uterus out through between the muscles and to allow the intestines to drop down. I found the tear was extensive, extending transversely across and separating the vaginal tissues from the cervix uteri throughout one-half of its extent. The cervix uteri was not torn. The edges were so bruised and blackened and friable that I concluded that it was best to ligate the portion of vaginal tissue still attached to the uterus and to remove the organ. This was done in a few minutes, care being taken to avoid injury to the ureters. The uterus was soon removed. The ligatures were drawn down into what remained of the vagina, together with a rope of iodoform gauze. A funnel-shaped cavity was formed, lined on its upper surface by peritoneum, and into this the intestines sank. It was thus quite easy to prevent hernia of the intestines into the vagina. The abdomen was thoroughly washed out, but it was found impossible to remove all the meconium and vernix caseosa from the intestines. The patient lived for thirty-six hours, and died of rapid septic peritonitis.

On postmortem examination the kidneys and ureters were removed entire. The ureters were fully an inch to an inch and a half away from the nearest ligature and were uninjured. General septic peritonitis was found. There was not much blood found in the abdominal cavity at the time of operation.

Such cases are rare. These tears are found about as often on the anterior as they are on the posterior wall. There are very few cases in which the uterus is completely separated from the vagina, but such have been reported. It is stated that these ruptures are more frequently met with in primiparous than in multiparous women; but it must be remembered that there is a larger number of labors represented by multiparous women than by primiparous women, and therefore ruptures of vagina and uterus should be more frequent among the multiparous than among the primiparous.

There is no doubt that dystocia may be produced by prolapse of the uterus through the anterior abdominal wall. I had one patient who suffered from separation of the recti muscles, and when pregnant the uterus hung almost to the

knees. She had very difficult labors on several occasions, and I agreed with her physician when he advised the production of a miscarriage on three or four occasions. On one of these occasions, after she had had a terrible labor some three years before, we decided to let her come to full time and to send her into the lying-in hospital under one of my confrères. Notwithstanding the fact that the uterus was bandaged back by a firm compression bandage into the abdominal cavity, it was only emptied after a great deal of difficulty. The case I have just recorded, in which this terrible laceration took place, shows that it is dangerous to allow women with this condition to bear children without regulating the direction of the expulsive forces by means of a firm compression bandage.

There is only one book in which I find it mentioned that spontaneous and artificial rent of the upper posterior portion of the vagina is especially liable to occur in case there is a pendulous abdomen that permits the anterior displacement of the uterus. This fact may be mentioned in other works through which I have not looked. In the work referred to no cases are cited and no references given (Hirst). McClintock says that there are certain conditions that may permit of a spontaneous rupture of the vagina: first, disease of the vagina itself; second, disproportion between the size of the fetal head and the maternal pelvis; and (3) osseous irregularities upon the internal surface of the pelvis.

Ruptures of the vagina, although grave, are not by any means always fatal. Danyau records four recoveries in seventeen cases, and McClintock thirteen recoveries in fifty-one cases.

The treatment of punctured wounds has already been indicated. In some of the cases it will be advisable to open the abdomen, wash out and drain as we would for any acute attack of general peritonitis. Unfortunately these cases have generally progressed too far before the surgeon is called on to interfere. I do not consider it advisable to operate on the cases in which there is a more localized peritonitis, because many of them will recover without operative procedure. The pelvis may be packed with an inflammatory mass produced by exudate, and yet the patient may make a good recovery.

Only a few days since I operated on a case in which the diagnosis lay between extrauterine pregnancy and inflammatory trouble due to the use of a syringe for the purpose of bringing on a missed menstruation. After opening the abdomen I found the intestines covered with peculiar grayish lymph in some places, reddened in other parts, with all the evidences of a subsiding peritonitis; absence of adhesions. I never before witnessed the effects of peritonitis in this stage; old lymph, becoming cheesy, was found in the cul-de-sac of Douglas. I decided to close the abdomen and leave the ovaries and tubes

*in situ*, concluding that the case was one of simple inflammation of the pelvic peritoneum covering uterus, ovaries, and intestines, and that there was no indication for removal of any organs. This is the condition produced by perforating wounds. The only two dangers I have met with in these cases are from prolonged sepsis and abscess formation, and acute general septic peritonitis.

The treatment of rupture of the vagina occurring during pregnancy or parturition is altogether a different matter. It is important in such cases to arrest hemorrhage. In cases like mine it will be found difficult to prevent prolapse of the intestine. A plugging from below may prevent both, but will not prevent septic peritonitis. It is mentioned in one case of Breslau that a midwife and bath attendant, by means of the finger nails, removed the uterus in a case of rupture of the vagina, and by means of plugging from below retained the intestines in their proper place. From my experience with these cases I am satisfied that it is easier to retain the intestines in their proper place after the uterus has been removed than before its removal. It is easy to invert the peritoneum over a plug of iodoform gauze, just as we do after performing the operation of total extirpation of the uterus. It may perhaps, in some cases, be wise to leave the uterus *in situ*. If it is entirely separated from the vagina it must be taken away. I removed it in my own case, owing to the fact that I was unable to control the hemorrhage without tying the broad ligaments. The posterior wall of the cervix, from which the vagina had been torn, bled very profusely after handling it during operation.

Is celiotomy the best practice in such cases? We have records of recovery without celiotomy and with celiotomy. Even if the abdomen is opened it is impossible to wash out all the meconium, vernix caseosa, and liquor amnii from among the coils of intestines. But surely the patient is cleaner and less liable to septic inflammation after the abdomen has been washed than before. It is well enough for some authorities to tell us that meconium is sterile, that liquor amnii is unirritating and vernix caseosa harmless, but there are very few peritoneal cavities able to take care of these "harmless (?) " substances.

I operated on a patient into whose abdomen the liquor amnii escaped three days before from a ruptured extrauterine pregnancy at full term. She did not die of fatal peritonitis, but made an excellent recovery from the operation. The peritoneal cavity will occasionally tolerate pus, but we would scarcely care to leave pus in the cavity if it could be removed.

The extra incision that is required for the delivery of the child through the abdominal wall can scarcely be considered as likely to increase



shock. The delivery of the child back through the torn vagina (and the same holds good with the torn uterus) must of necessity increase the traumatism, and I can scarcely think that it is the best practice to pursue. If the abdomen is opened it is opened for several reasons: first, to inspect and ascertain the severity of the hemorrhage; second, to remove from the peritoneal cavity substances that are likely to inflame it; third, to repair the laceration if possible; fourth, to obtain drainage from below and from above (if necessary); fifth, to provide a means to prevent prolapse of the intestines; and it is a question whether the abdomen should not be opened for one other reason—sixth, the delivery of the child through the anterior abdominal wall.

It is an easy matter for a library surgeon to sit in his arm-chair and formulate rules for our guidance, and to tell us that sutures should be applied to the edges of the rupture so that the rent may be closed. In the case of which I show you drawings it was not possible to close the vagina with sutures without greatly increasing the traumatism to the parts and the risk to the patient. The edges of the wound were puffed, edematous, gangrenous, and would not hold stitches. An immense amount of paring would have been required, and this paring would have increased the loss of blood from which the patient had already suffered. I scarcely see why we should waste time over the suturing of the rent. It is the drainage of the rent that is required more than a suturing of it, and a cleansing of the parts above.

Perforations of the uterus occur as a result of attempted miscarriage. On one occasion, while performing an abdominal section, the house surgeon was asked to pass a sound. The patient was profoundly septic and her tissues were very soft. The sound was passed up from below, and I felt something underneath the abdominal wall. I asked the house surgeon to hold it, and immediately opened the abdomen and cut down on the sound that he had forced through the uterine fundus. After he withdrew the sound I examined the perforation, found that it bled slightly, cleansed it, completed the operation for which the abdomen was opened, and closed the wound. The patient made an uninterrupted recovery.

Perforations of the fundus occur as a consequence of the use of the curet, and I think this may sometimes account for the untoward results of curetment. I operated in one case of acute purulent peritonitis occurring six days after the use of the curet by a physician, but could discover no rent in the uterine wall.

Lacerated wounds of the uterus are more frequently met with in the cervix than elsewhere. Fortunately many of these lacerations are of but slight importance. They are occasionally produced by the use of the solid metal dilator. It is unnecessary to give them more than a passing

notice in this connection. We therefore pass on to the consideration of rupture of the uterus in its true sense. McClintock found that in thirty-five cases out of 108 the vagina was lacerated as well as the uterus.

Rupture of the uterus may occur before labor, from the fourth to the ninth month, as a consequence of external injury or the giving way of cicatrices left by former lesions, or the tearing of dense adhesions. I operated on one case of extrauterine pregnancy in a patient with a bicornuate uterus with one of the horns ill-developed. The fetus developed to full term in the abdominal cavity. In this case I am satisfied that the pregnancy occurred in the ill-developed horn, that rupture and extrusion of the child took place about the third month, and that the woman went on to term.

Leopold relates the case of a woman who ruptured her uterus, two or three weeks before quickening, by falling down some cellar stairs and alighting heavily on her sacrum and nates. She had no hemorrhage or abdominal inflammation, and soon recovered, but from the time the child's movements began they caused her such severe abdominal pain that she was almost completely bedridden. Movements ceased about three weeks before the end of her term. There was no discharge of blood or decidua. On performing laparotomy the child was found in a delicate sac, and when extracted by the head the pelvis and foot, which lay near the pancreas, were followed by a coil of small intestine with which they must have been in direct contact. The cord passed into the uterus through a perpendicular slit, about two centimeters long, behind the right ligament. The patient recovered. Leopold concluded that the rupture was caused by the posterior surface of the uterus coming into violent contact with the promontory of the sacrum.

The diagnosis of rupture of the uterus before labor must be extremely difficult. It is a subject that will be well worth future study.

The treatment must depend upon the individual case under discussion at the time.

The causes of rupture of the uterus during labor may be formulated as follows: first, mechanical impediment to the course of labor, such as presence of fibroid tumors, etc.; second, increase of the size of the child or child's head owing to sex or deformity, such as hydrocephalus, monstrosity; third, faulty presentations of the fetus; fourth, compression of the cervix uteri between the head of the child and the pelvic walls; fifth, deformity of the pelvis; sixth, operative violence; seventh, preternatural violence of uterine contraction due to improper administration of ergot, or other causes such as morbid excitability of the organ; eighth, straining at stool; ninth, disease of the uterine wall, such as cancer, partial atrophy or thinning, abnormal soft-



ening, fatty degeneration, hydatid disease; tenth, narrowing of the os uteri as a consequence of extreme rigidity or atrophy; eleventh, abnormal development of the uterus.

The operative violence that is perhaps responsible for more ruptures of the uterus than any other is turning after the liquor amnii has escaped for some hours.

Two of my confrères sent for me one night to see a patient. On my arrival I was informed that they had been all night with the patient, that they found an occiput-posterior presentation in the pelvis of a primipara. After long, weary waiting they decided to use forceps. An attempt was made to deliver with forceps and failed. Turning was then resorted to under chloroform; this was about three or four hours after the escape of the liquor amnii. The feet were brought down with considerable difficulty, but after that the delivery of the child was easily accomplished in about twenty minutes. The placenta was expressed exactly as in a normal labor. The woman remained in a good condition for about three-quarters of an hour and one of the physicians had gone home. After this the pulse became rapid and the patient's face looked anxious. I found her in this condition. The patient died. I advised the doctor after death to get the nurse out of the room and pass his hand through the vagina in order to ascertain the extent of the rupture. He did so and found a large tear on the left side of the anterior wall of the uterus.

Out of 197 cases of traumatic rupture seventy-one followed version, thirty-seven the employment of forceps, ten cephalotripsy, and thirty other unwise manipulations. I operated successfully on one case of rupture of the uterus, produced by introduction of the hand of the practitioner. Moderate contraction of the pelvis is more liable to produce rupture than excessive contraction, as in the latter case the cervix is always kept above the brim and the fetal part cannot engage.

Rupture is said to occur in about one in three thousand deliveries. In a record of 6,777 cases attended by my father, the late James Ross, he had one case of rupture of the uterus, No. 5,017 in his list. It was a forceps delivery in a multiparous woman; the child's head was large. Suddenly the patient stated that she was dying and became pale and almost pulseless. The head was delivered and great difficulty was found in delivering the shoulders owing to their size. Placenta then followed by pressure over the fundus, and the uterus contracted well. No rent could be discovered by the fingers in the vagina. Patient died thirty-six hours after delivery. This was before the days of modern abdominal surgery. At the postmortem examination liquor amnii, blood, and vernix caseosa were found in the peritoneal cavity. A large rent extended from

the right side of the neck of the uterus obliquely upward across the posterior wall toward the left cornu, almost as high as the left Fallopian tube. This involved the whole thickness of the uterine wall. The os and cervix remained intact.

It has been stated that rupture of the uterus occurs more frequently in second and subsequent labors than in first labors. Churchill and Trask, however, claim that there is a preponderance of rupture of the uterus in primiparous cases, due in all probability to protracted labors. Many writers claim that rupture of the uterus may take place before the membranes are ruptured.

Simpson's statistics showed that when labor extended beyond twenty-four hours there was rupture in one case in thirty-eight; when it lasted only six hours, one case in 2,000. The mean duration of labor in fifty-seven cases of rupture was twenty-one hours and six minutes, as given by Trask.

Trask's analysis of 1,848 showed rupture of the cervix in fifty-five per cent., rupture of the body in thirty-six per cent., and rupture of the fundus in nine per cent. It is generally admitted that the most common seat of rupture is the posterior wall of the inferior segment, and, next to this, the lateral walls, especially the left. The ruptures are usually single, but may be multiple. It is rare to have a simple perforation of the uterine tissue, as the tear usually extends over a distance of three or more inches. It sometimes happens that the peritoneal layer is not torn through, but pushed back by blood extravasated beneath it.

While a student at Prof. Braun's clinic at Vienna in 1880 I saw a case of rupture of the uterus occur February 13, and the patient lived until the 23d. At the postmortem examination there was a rent in the cervix; blood was found effused under the peritoneum to an enormous extent. The peritoneum was not torn.

From an experience of three cases of rupture of the uterus and one of rupture of the vagina I may say that the rapid pulse, the dyspnea, the nausea, vomiting, and cold perspiration, are not necessary accompaniments of rupture. In two of these cases the symptoms were found, and in the other two, one of which includes the case of vaginal rupture just under consideration, no such symptoms were present. It is generally considered that the contractions of the uterus cease after rupture.

An interesting table is given by Jolly. Among 580 cases of rupture the uterine contractions ceased in 286, external hemorrhage occurred in 148, collapse in 179, vomiting in 147, retraction of the presenting part in 146, abdominal pain in 133, and in seventy-seven the fetal limbs could be felt through the abdominal walls.

Among a few other points that have been noticed by different observers are a tearing sound heard by the patient and by-standers, violent

movements of the fetus followed by sudden cessation of the heart sounds, a change in the shape of the abdomen and the uterus, with the escape of the fetus, each forming a tumor with a furrow between them. An emphysematous condition has been noticed, with fluctuation or a dullness in the flanks, as a consequence of intraperitoneal hemorrhage or fluid. In some instances symptoms may be almost entirely absent and the rupture may escape recognition; but such phenomena as fixed pain and vomiting, recession of the presenting part, and cessation of contractions must awaken the suspicion that rupture has occurred.

Sometimes labor proceeds in spite of rupture until the child is expelled spontaneously per vias naturales. In cases in which rapid pulse follows severe labor and peritonitis sets in early, a partial rupture of the uterus may exist and be overlooked. This is a point requiring further thought and investigation.

The prognosis for the mother is particularly grave when the fetus escapes into the abdomen. Prognosis for the child is always bad.

At the present time expectant treatment has been almost entirely abandoned. Extraction of the child by the natural outlet is the usual procedure. This I have already criticised in dealing with ruptures of the vagina. Such extraction may, of course, be accomplished either by forceps or version. Undoubtedly celiotomy is the operation that gives the most successful results. The stitching of the tear, I consider, is quite uncalled for and may be difficult to accomplish. Such bruised and gangrenous tissues will not unite by first intention, and I am satisfied, from a personal experience with one case, that all that is required is a packing of the uterus and vagina with a rope of iodoform gauze that has been drawn down through the uterine tear and cut off level with the peritoneum on the peritoneal side, together with the placing of a glass drainage tube in the cul-de-sac of Douglas. The contractions of the uterus have already done what the surgeon would waste time in doing by closing the rent with stitches. The abdomen should in any case be thoroughly irrigated. It is only in exceptional cases, in which hemorrhage is severe, that hysterectomy is called for. It has been stated that in performing the operation of hysterectomy ligature *en masse* of the tissues is insufficient, owing to the fact that the vascular and edematous pelvic connective tissue shrinks up and loosens the ligature. I may say that such hemorrhage depends upon the force with which the ligature is applied and the material of which it consists. I believe that in any of these cases ligatures can be applied with safety to tissues *en masse*, provided sufficient force is used in tying them. Unless of first-class material the ligatures will not stand the strain required.

## THE EARLY DIAGNOSIS OF PROGRESSIVE PARESIS.\*

Experience teaches that in the majority of cases the beginning of progressive paresis is not recognized by the attending physician. It may be said that most paretics, when received at the psychiatric clinic or insane hospital, have passed through a stage of weeks, months or even longer duration, in which, because an incorrect or no diagnosis was made, they were deprived, to their own injury and that of their families, of such professional advice and direction as their already recognizable morbid mental condition should have received. Of the reasons for this, notorious deficiency in diagnostic ability of numerous physicians—the small degree of psychiatric knowledge, the slight practical perception for morbid mental states—will first begin to disappear after a change is effected in the present method of medical instruction and examination; the other exists in the real special difficulties, which are met with in the early diagnosis of progressive paresis in many cases. The expert psychiatrist also finds it quite often necessary, especially in his ambulating cases, to record the diagnosis: "progressive paresis," with an interrogation mark and the proviso that repeated examinations and observation of the further course will furnish the definite decision. In such doubtful cases a certain diagnosis is, of course, not to be expected of the practitioner; but it can be demanded of the family physician, the physician in official positions, that he must have an opinion as to the bearing of certain physical and mental changes, which generally precede with a greater regularity than suspicious indications, the outbreak of the incurable mental disorder.

The numerous masks under which this disorder may occur in its beginning, the similarity which the incipient forms of severe organic disease of the nervous system present to other relatively harmless functional affections, make it essential to know exactly those differential diagnostic signs, which almost without exception permit the physician to make the diagnosis so early that serious social injuries are spared the patient and his relatives and to make it with such subjective certainty that the responsibility for the institution of thorough measures (removal from office or society, commitment to an institution, disfranchisement, etc.) may be undertaken.

What are we to understand by the early diagnosis of progressive paresis?

We must first briefly refer to the question as to the nature of progressive paresis.

Of the influences whose mode of action we know only imperfectly and of whose relative frequency opinions disagree (syphilis, head traumas, physical and mental excesses), the clinical

\* DR. HOCH, Straßburg. Translated by DR. W. ALFRED MCCOEN for *Aliment and Neurologist*.

type most often developed in middle age, rarely earlier or later, three or four times more frequently in men than in women, which is slowly progressive or abrupt, whose principal symptom is the deterioration of the intellectual force even advancing to dementia, with simultaneous psychic anomalies recognizable in all.

Coincident with this progressive development of a dementia numerous motor and sensory symptoms of irritation and degeneration occur, in whose distribution to almost all parts of the nervous system the anatomic character of the disease is expressed. The more rapid or slower course of the disease is practically to be regarded as incurable and usually terminates fatally in a few years from the time a positive diagnosis is possible; the total duration usually exceeds the popular statement of "two to three years."

As an anatomic basis we assume a chronic, apparently primary atrophy of the nerve elements, which is unequally distributed to the cranial contents, the spinal cord and the peripheral portions of the nervous system. Of all the common organic diseases of the nervous system the anatomic process of progressive paresis possesses the greatest extent.

The extraordinary diversity of the clinical types, which the incipient stage of the disease presents especially, is explained by the difference in the functional value of the part usually affected, by the diverse occurrence of the degeneration process in this or that part with respect to time and the varying tempo of its advancement.

The most constant anatomic symptom, the extensive degeneration of the nerve elements of the cerebral cortex, corresponds to the most constant clinical symptom, the progressive mental enfeeblement.

In many cases this purely progressive mental enfeeblement is the prominent psychic symptom until the end; in other cases active dispositional anomalies in the sense of exalted or depressive emotions of all grades accompany it, coincident with concepts of corresponding import (grandiose delusions, hypochondriac and melancholiac delusions), more often sense deceptions also; markedly intensified emotions occur in the states of so-called psychical excitement.

The majority of the cases present peculiar, episodic attacks, possibly occurring in all stages of the disease, known as the "paretic seizures," which in general manifest wide differences; they paroxysmally induce clouding of the consciousness, varying from the mildest, momentarily unnoticed absence or very temporary attacks of vertigo, even to severe coma, with or without convulsions, frequently with residuary, but usually temporary, motor and sensory manifestations of defect, and almost always followed by a further sinking of the intellectual level. Perhaps some of the previously mentioned episodic states of psychic excitement belong etiologically to these

"seizures," whose anatomic basis is to be regarded as temporary circulatory disturbances in the brain or small hemorrhages, or also locally accelerated degeneration of the nerve elements.

The paretic changes in speech and writing are a combination of intellectual and purely motor disturbances; to the purely motor belong the pareses of the muscles of the face, tongue, pharynx, larynx and extremities accompanied by tremor and finer or coarser twitchings. The weakness of the latter occurs in cases dependent on cerebral changes in form of unilateral or bilateral hemiparesis; the motor derangements of the extremities, of the legs especially, due to morbid processes in the spinal cord, manifest manifold conditions, which depend on the topographic distribution of the anatomic processes. There is found (Fürstner) in sixty-two per cent. of the cases a disease of the lateral and posterior columns, usually with marked implication of the first; in twenty-four per cent. a disease of the posterior columns only and in fourteen per cent. that of the lateral columns alone.

Accordingly the purely spastic symptom complex in the lower extremities with active tendon reflexes and dorsal clonus is frequent, at least somewhat more frequent the ataxic paraparesis with absent patellar reflex, the most frequent the so-called paretic gait usually accompanied at first by increased, then absent, reflexes, which is due to the paresis and disorders of co-ordination, and in whose origin cerebral influences may co-operate. Circumscribed simple or degenerative muscular atrophy, especially in the upper extremities, may be of spinal or peripheral origin. Localized sensory degenerative manifestations in the legs, and possibly violent pains, are a consequence of disease of the posterior roots and posterior columns of the spinal cord; general anesthesia or more frequently analgesia is of psychic origin, and due to defective apperception (loss of the faculty of attention). Disorders of the bladder and intestines owe their origin to the same defect in the cases where these anomalies are not of spinal origin.

The significance of the disorders of innervation of the pupils, especially of the wanting reaction to light is that in them the early relatively slight, even scarcely perceptible central interruptions of conduction (by degenerative processes), become outwardly manifest in the complicate mechanism. For the pathologic spinal process we possess the correspondingly fine reaction in the condition of the patellar reflexes, in whose changes at least the influence of cerebral derangements may be concerned.

The diagnosis of a fully developed case of progressive paresis, in which many or the majority of the symptoms mentioned, are present, is made very easily and can only fail from gross ignorance or careless examination; but usually a less apparent prodromal stage precedes this well-marked



condition, whose duration may be one to three years, possibly longer; indeed, we have reason to assume that the beginning of the anatomic process may have existed for years in a lingering manner, without these tangible symptoms directing the diagnosis in a definite direction.

Symptoms diagnostically very different belong to this prodromal stage. We know those, which supplementarily, after the disease has fully developed, acquire their significance as early paretic symptoms from which alone the diagnosis could not have been made earlier; we know others, "premonitory" (Sander) in the strict sense, which attain great early diagnostic and hence prognostic value by their presence before the beginning of paretic psychic enfeeblement can be proven or by the fact of their occurrence at a certain age, or certain other combinations to be considered later; finally we know those which in like manner belong to the prodromal as well as to the stage of the fully developed disease, whose presence may cause the bounds of both to appear as voluntary.

The very earliest signs which may precede the beginning of the abnormal psychic manifestations for ten years, are those belonging to the symptom complex of tabes, of which the most important are: Reflex pupillary immobility, absence of the patellar reflexes, lacerating pains, optic atrophy; hence arises the question whether in these cases it is not simply a matter of tabes, in whose course a progressive paresis is developed. Thus the general question as to the relation of tabes and progressive paresis is entered upon and to avoid later obscurities and repetitions it is necessary to briefly outline the point of view.

The majority of alienists see in progressive paresis an independent disease, which in a certain portion of the cases is developed in individuals already tabetic, and in another portion, without the typical clinical type of tabes needing to be present, the anatomic process in the spinal cord shows a distribution more or less identical with the tabetic; the rest of the cases, the majority, among which besides other things are found those accompanied by purely spastic manifestations, has nothing to do with tabes according to this opinion, in spite of several common organic nervous symptoms like the reflex pupillary immobility. Contrary to this view is another theory, which has recently acquired an increasing number of followers in France and Germany, that an identical morbid process is at the foundation of tabes and progressive paresis, besides the common and exclusive etiology of the preceding syphilitic infection, which according to its localization causes the one or the other, or both combined, to appear, then, that in a certain measure every tabes is an incompletely developed paresis, or progressive paresis, represents one of the possible varieties of tabes.

At this time an exact proof of the one or the

other theory cannot be adduced; if the second is accepted as correct, all its hypotheses, especially that of etiology, would better satisfy classification and theoretically simplify matters; the unbiased estimation of the preceding facts, but especially the consideration of the clinical course affords no sufficient basis to justify for practical purposes the identification of tabes and progressive paresis; the truly complicated conditions are not readily explained by the theory of identity. The following facts are the actual material in this question:

(1) Tabes and progressive paresis in common are etiologically related to syphilis; differences of opinion exist as to their frequency.

(2) Common to both, further, is the apparently primary degeneration of the nerve elements.

(3) Progressive paresis is developed in the course of a certain number of cases of tabes, but which generally is of a peculiar form, from the slowness of its advancement and, psychologically, by the simple uncomplicated progressive dementia.

(4) A certain portion of the cases diagnostically as progressive paresis manifest an affection of the posterior columns of the spinal cord; it is an open question whether it is topographically identical with the typical degeneration of the posterior columns of tabes.

(5) The other degenerative spinal processes present in progressive paresis (disease of the lateral columns) are not found in simple cases of tabes; their dependence on cerebral influences (in a form of secondary degeneration) is not proven.

(6) There are a large number of cases of progressive paresis, which anatomically and clinically do not possess the slightest similarity to tabes in their spinal symptoms.

(7) Psychical derangements are developed quite often in old cases of tabes, but which do not belong to progressive paresis; simple dementia or hypochondriacal paranoia especially.

These facts make us, by ignoring all possible theoretical opinions, practically conform diagnostically, as well as prognostically, to the proposition that in tabes and progressive paresis we have two different forms of disease which possess numerous chief points of contact and coincide in the same individuals in a series of cases.

Hence it is to our purpose to formulate the value of the early signs of progressive paresis belonging to the tabetic symptom complex: the so-called classic initial tabetic symptoms, reflex pupillary immobility, absence of the patellar reflexes, lacerating pains and optic atrophy, may likewise be the early symptoms of a progressive paresis later; but the suspicion of the latter is first justified when one or more of the general cerebral symptoms to be fully discussed later—especially change of character, lowered intelli-

gence, disorders of speech, convulsions—are associated.

Owing to their importance and frequency the derangements of the pupils must be given the first place among the early symptoms.

They are found in more than half of the cases of progressive paresis, often many years before the first appearance of the psychic symptoms, and also in cases which later in their spinal disease are not of the posterior column type. In almost no other symptom is a correct technic of examination so essential as in testing the condition of the pupils; in almost no other are the simplest rules so often violated.

In examining the pupils we consider chiefly their absolute size. The possibility of a previous iritis, of the existing effect of atropin, opium or eserine is to be taken account of. In general, the pupils are larger in children and women, as well as in anemic, sensitive, nervous individuals; they become smaller with advancing age. Very small pupils of equal size are found as an early symptom of progressive paresis in conjunction with reflex pupillary immobility to be discussed later; very large and simultaneously immobile pupils hardly occur as an early symptom.

In judging the size of the pupils a diffuse light of medium intensity is indispensable, but above all a symmetrical position of the light with respect to both eyes (window). This is equally necessary in determining differences in the size of the pupil; in a side illumination from a window, *e. g.*, in which one eye is in the shadow of the nose, a difference in the pupils is found in perfectly healthy persons. Even a slight pupillary difference in symmetrical illumination, with light reaction retained, is not always a sign of an organic affection; it is quite often found alone or with other congenital asymmetries as one of the so-called signs of degeneration and possesses no more significance than these, yet in these cases is of theoretical interest.

It is further found, even without loss of the light reaction, as a temporary manifestation varying in its intensity or between the right and left *e. g.*; in migraine, epilepsy, in nervous conditions following accidental injuries, in simple psychoses. The condition of the absolute size of the pupils and their difference in retained light reaction are far inferior in significance to the symptom of reflex pupillary immobility, *i. e.*; absence of contraction of the pupils to light with retention of mobility in accommodation and convergence. The latter factor, the mobility retained as involuntary, differentiates reflex pupillary immobility from complete pupillary immobility due to peripheral lesion of the motor oculi, *e. g.*, in syphilitic meningitis. The proof of reflex immobility signifies, according to the pathologico-anatomic considerations, that the central connections between the optic terminals and motor

oculi nuclei, which serve to conduct the physiologic reflex process, have been broken.

The prosensual frequency of those affections in which occasionally reflex pupillary immobility is observed (multiple sclerosis, especially localized tumors or hemorrhages) is slight in comparison to the number of cases of tabes and progressive paresis, whose classical early symptom is the reflex pupillary immobility.

"Sluggishness of the pupils" represents the transition from the normal condition of light reaction to the reflex immobility, a term, in whose employment circumspection is requisite in pupils of small size, then in individuals approaching senility; the categories mentioned as possessors of specially large pupils, show a more prompt reaction than healthy men, even of middle age. We find sluggishness of the pupils as a pathologic manifestation in different organic brain affections, especially in the numerous forms of hemorrhage or softening with dementia, etc., also in chronic alcoholism. In the latter, what is important in differential diagnosis, the sluggish reaction often becomes normal again after a few weeks abstinence.

Reflex pupillary immobility and sluggishness are found in progressive paresis on one and both sides; in the earliest stages difference between the right and left as to promptness of action is almost the rule, and the diagnostic value of the absence of reflex contraction of one of the pupils is no less than the loss of this phenomenon on both sides. Difference in the size of the pupils, even of slight degree, with simultaneous sluggish or wanting reaction on one side, is of ominous significance. The diagnostic proposition that, all recent, apparently functional, neuroses and psychoses in men of middle age (25-55) are suspicious as to progressive paresis by proving reflex pupillary immobility or difference in the pupils in undoubted sluggish reaction, indicates the importance of an exact examination of the pupils.

The examination as to quantity and quality of the light reaction demands not only a correct, but, if subjective certainty is to be attained, also uniform method; it does not suffice, as is so often seen, to briefly shade the eye to be examined, which is perhaps inspected in a dark corner of the room, with the hand held before it. Also the method of opening and closing the lid with the fingers is improper, because slight movements of the pupils may readily escape the examiner in consequence of the unavoidable movements of the bulb and the light reflex on the cornea occurring suddenly at the moment of opening the lid, while on the other hand the involuntary movement of accommodation of the pupils occurring almost always simultaneously may deceive as to the light reaction.

The requirements which must be complied with for a reliable examination of the pupils, are,

that the examiner can constantly and clearly see the pupils during the shading and illumination of the eye, and that at the moment of illumination movements of accommodation, as well as of convergence, do not occur in the eye examined. The latter are not easily excluded in the insane.

The shading hand, whose removal suddenly subjects the retina to the light of the window, must not be held in the visual axis, otherwise the eye will accommodate to it, but the eye must be half covered from the side of the light; the patient looks past the examiner at a distant point, then at the moment of illumination or shortly after the contraction of the pupils is observed, or possibly the absence of this manifestation, reflex immobility. In sufficient daylight it is best to arrange for a light behind the examiner's head, possibly a brightly burning match, so that the eye previously in the shadow is suddenly illuminated.

In spite of the questionable result do not neglect testing the light reaction in the dark-room by a lateral lens illumination. Experience teaches that the more carefully the pupils are examined the fewer become the cases in which—except in tabes and progressive paresis—true reflex pupillary immobility is found. The examination of control in pupillary movement in form of involuntary motion in convergence and accommodation is so simple that the patient is told to look at the tip of his nose or at a distant object which can be quickly moved toward him; then very slight contraction of the pupils is often observed, which in accommodating for a distant point is replaced by dilatation.

The want of consensual light reaction, *i. e.*, the absence of contraction of one pupil when the other eye is illuminated, may be the first symptom of a pupillary disorder; in questionable cases it is to be sought for. While reflex pupillary immobility with or without differences in size of the pupils, is peculiar to these cases of progressive paresis, which are not of the posterior columnar type, we meet with a number of other early signs as a rule only as an indication of a tabetic symptom-complex previously or simultaneously instituting the paresis, namely: lacerating pains, girdle sensation, analgesia of the legs, gastric or other crises, optic atrophy, paralysis of the eye muscles of a temporary character usually.

All that has been said of the symptoms is true as to the relation of tabes to progressive paresis. Lessened potency and mild vesical disorders are met with in the early stage without other tabetic symptoms.

The condition of the tendon reflexes, especially of the most practically important patellar reflex, demands a somewhat exhaustive discussion. It may be said in general, with the same precautions, its early diagnostic value depends on the fact that its definitely proven anomalies, for

which careful examination is unable to furnish any other explanation, may infer paresis in any recent neurosis or psychosis, apparently functional, in men of middle age.

Of the quantitative changes the complete absence of the patellar reflex is the most diagnostically valuable, because it is an absolute quantity, while the different degrees of its increase in their estimation depend on the examiner's judgment. In the latter, peripheral causes (muscular atrophy, neuritis, surgical diseases) are to be excluded before it is to be considered diagnostic evidence of a spinal disease; in the former, it is to be remembered that there is no normal quantity of the reflex muscular contraction of the quadriceps and also that in functional diseases exaggerated tendon reflexes occur.

To justify the assumption of an organic cause of increased patellar reflex, corroborative facts must exist, namely, muscular spasms in the lower extremities or the proof of an evident dorsal clonus. The occurrence of three or four quickly exhausting contractions in the tense peroneal muscle is not to be regarded as such in exact test, for it may occur in many surgical diseases accompanied by muscular shortening, as also, *e. g.*, in neurasthenia or hysteria, etc.

But in consideration of these restrictive precautions the proof of an increased patellar reflex has the same diagnostic significance as that of its absence. Its absence proves, when peripheral causes are excluded, an interruption of the reflex arc in the spinal cord, which in progressive paresis is located most often, according to experience, in the posterior roots or posterior columns; increase proves the presence of pathologic processes above the reflex arc and in the pyramidal tract to the extent of the ganglion cells of the motor region of the central convolutions, even to a plane lying above the level of the spinal reflex phenomenon for the patellar reflex that indicates the height of the dorsal and lumbar cord; in progressive paresis the lesion to which we refer the increased tendon reflex in the lower extremities is located most frequently in the lateral pyramidal tract of the dorsal cord.

In respect to the cases of progressive paresis beginning as typical tabes, increased reflexes are more frequent than their absence in the early stages of the disease (in the later stages this is changed); the cases with wanting reflex predominate, and for the simple reason that in the cases constituting the majority of combined disease of the lateral and posterior columns the interruption of the reflex arc in the lumbar cord prevents the reflex increased effect of the disorder of the lateral column.

Unilateral changes, especially absence on one side, afford an important support in estimating the condition of the patellar reflex; if increased on one side the assumption of a somewhat earlier hemiplegia as reason for the increase de-



depends on the proof of a simultaneous increase of the triceps tendon reflex on the same side, which is rarely wanting. A test of the patellar reflex, which in questionable cases demands care, should only be made on the bare leg; it is insufficient to strike a blow "in the region of the knee" through the trousers; when muscular contraction is insufficient to throw the lower thigh forward the reflex can almost always be elicited by an at least perceptible or sensible contraction of the quadriceps, its absence should only be asserted when the attention at the moment of testing is diverted from the phenomenon in the leg by the well-known procedure of reinforcement.

To attain the Achilles tendon phenomenon, dorsal clonus, a certain technic is demanded; even a marked dorsal clonus may not be elicited owing to an awkward test. The recumbent patient's leg is supported with one hand in the popliteal space, with the other, which does not need to completely grasp the foot, in weak musculature, of the patient, with only two fingers a brief pressure upwards is made on the sole of the foot at the level of the small metatarsal bones, but without ceasing the pressure; if the organic conditions exist for the occurrence of the dorsal clonus, a series of rapidly repeated contractions of the peroneal muscle, like the play of Wagner's hammer of the induction apparatus, at once begins, causing a plantar flexion of the foot; according to the degree of excitability, the phenomenon lasts longer or shorter, until the reflex is finally exhausted. In the milder forms of dorsal clonus this exhaustion occasionally occurs so quickly that in its demonstration the second or third attempt fails, while a well marked dorsal clonus was elicited the first time. In testing the tendon reflexes it is essential that a uniform method be practiced to secure an objectively correct and subjectively certain judgment.

In early diagnostic value the "paretic seizures" are very closely related to the reflex pupillary immobility and the condition of the tendon reflexes. The serious conditions, increasing to status epilepticus, which are peculiar to the seizures of the latter stages, and quite often are the direct cause of the patient's death, are scarcely ever found in the prodromal stage. The most frequent are the epileptiform seizures in the form of petit mal; pallor, syncope, sudden feeling of vertigo, brief loss of consciousness, or the mildest apoplectiform attacks, namely, temporary paresis occurring suddenly with vertigo or at night while asleep, possibly with very transient impairment of speech or a sudden feeling of numbness of one side of the body, even of one extremity only. Between the epileptiform and apoplectiform seizures, which have essentially a common genesis, there are clinical transitions, which make a strict separation appear voluntary.

For the differential diagnosis of the early par-

etic epileptiform attacks from those common to genuine epilepsy, the following points are to be considered:

(1) The so-called *epilepsia tarda*, i. e., the first appearance of one of the real attacks not belonging symptomatically to epilepsy, in middle age, is practically of little account owing to its great rarity.

(2) At this age symptomatic epileptic attacks are observed; after injuries to the head, in chronic alcoholism, in syphilitic and other neoplasms of the brain and its membranes, as well as in cases of premature atheromatous changes in the vessels of the brain.

(3) As these diseases can be excluded by the anamnesis, by careful investigation of the characteristic attendant symptoms, possibly by the results of treatment, as in syphilitic affections, hence epileptiform seizures at this stage of life must awaken the suspicion of incipient progressive paresis, which becomes almost a certainty, when reflex pupillary immobility or the early psychical changes of paresis, to be mentioned later, are traceable.

(4) In epileptiform seizures of this age, paresis as a cause for the existing disorder is perhaps more frequent than all the morbid conditions previously mentioned.

(5) Violent headache, especially in form of migraine, occurring periodically in the prodromal stage, perhaps preferably that form known as "orbital migraine," is very closely related to the epileptiform seizures. As true migraine is generally common to the family or hereditary, beginning almost without exception in the individual's youth, so first and then repeated occurrence of attacks of migraine in middle age is a suspicious symptom, which may occur not only in progressive paresis, but also in tabes, epilepsy and in brain tumors.

(6) If such an attack of migraine does not in itself afford a definite diagnosis, it is at least a valuable warning signal for the physician and must not be put aside with the assumption that it is a matter of a harmless functional disease. In the presence of an abnormal psychic condition questionable as to its import, such attacks of migraine may possibly turn the scale in the direction of a diagnosis of progressive paresis.

(7) The early apoplectiform seizures are distinguished from other forms of hemiplegia caused by hemorrhage, embolism, softening or tumors by their usually abortive character at first, i. e., by their brevity and possibly slight extent of the paretic manifestations, but then also by the fact that even a repetition of the attack on the same side of the body does not always need to leave behind manifestations of gross disorganization.

(8) Frequently repeated apoplectiform seizures, which are attended by affections of the right extremities, generally present aphasic or

paraphasic disorders of speech as sequelæ of somewhat longer duration.

(9) Paretics in the early stage of the disease who have had an apoplectiform attack, often know nothing of an existing paresis, while simultaneous sensations of numbness, etc., worry them, or they are ignorant of an attack perhaps occurring at night, whose motor sequelæ—the paresis—lead them to consult a physician.

(10) The early apoplectiform seizures may soon alternate with premonitory minute apoplexies, which in diseases of the cerebral vessels quite often precede severe hemiplegia, and the certain differential diagnosis between these two forms of disease is often impossible for a time; seizures of this sort, which occur in the beginning of the thirties, are always a suspicious parietic symptom, for at this age, except in syphilitic disease of the cerebral vessels and arterio-sclerotic contracted kidney, apoplectiform conditions due to vascular changes rarely occur.

(11) For the diagnosis of paresis it is true that apoplectiform seizures, which have no evident etiology, turn the scale in favor of the assumption of paresis.

(12) The numerous modifications of the early parietic seizures occurring in practice are by no means exhausted in what has been said; the diagnostic significance of the first occurrence in middle age is common to all special forms of manifestation, and if it is, at least in men, "only a faint," which occurs in apparent health and without a perceptible cause.

The examining physician must ask about these things, as the patients forget these episodes, or, just as their relatives usually do, refer them to the manifestations or subjective troubles, which cause them to seek medical aid. These symptoms, which not exclusively, but yet frequently in point of time and in causative connection, follow the seizures, the apoplectiform especially, the more or less extensive motor of pareses are naturally to be mentioned after the early parietic seizures. In the early stage it is usually less a matter of marked variation in mere strength than of derangements of the finer forms of motion, hence for diagnosis the muscles are to be considered which present slight variations, either in respect to the previous condition or in comparison between the right and left, namely, the mimetic musculature, as also the musculature of the tongue and larynx. As these groups of muscles combine their action in the formation of speech, we find among the early symptoms derangements of speech, in so far as it is a matter of the processes of articulation.

The motor pareses in progressive paresis are usually accompanied by symptoms of mild irritation, tremor with spasms; perhaps in these symptoms of irritation is expressed that in the functional cerebral processes it is usually a matter of an active progressive process, not of a

single terminal event (just as in spinal affections the fibrillary muscular spasms possess diagnostic significance).

Of the motor pareses variations in the innervation of the facial nerve are one of the most common early symptoms. In them, as in the slight variations in the size of the pupils, precautions are to be exercised in diagnostic valuation.

Few faces of well persons permit exact test as to the determination of asymmetry; in epileptics, in individuals hereditarily predisposed and also without this factor we find asymmetries of the facial bones, and consequently, or also independently, asymmetries of the mimetic action are so often found that it is necessary to ascribe diagnostic significance to slight facial variations only when tremor or spasms simultaneously exist in the affected side or a correspondingly localized apoplectiform seizure is anamnesticly provable (just as we have seen slight variation in the pupils become of diagnostic value through another symptom, pupillary sluggishness or immobility). The symptoms of irritation of the mimetic musculature occur the most plainly in speech or protrusion of the tongue, and especially in the zygomatic and chin muscles; contrary to the extensive tic-like spasms, as we see them, *e. g.*, in many neurasthenics or in some cases of neuroses after accidents; in these early parietic symptoms of irritation in the facial muscles it is only a matter of a brief vibration in this region, a short mimetic "heat-lightening," best comparable to the short restless spasms which are seen about the mouth of healthy people when they speak during emotion. Latent mimetic symptoms of irritation are usually plainly recognized emotions (fortunately it is usually easy to produce voluntary emotions in the patient on examination).

Vibrations of the facial muscles are as often seen in alcoholics as in paretics.

Deviations of the tongue to the left or right are found early, but also after seizures; severe pareses with inability to protrude the tongue belong to the later stages.

Tremor of the tongue and the fibrillary restlessness of its musculature, as well as the tremor of the hands, are usually not to be differentiated from the corresponding appearance in severe neurasthenia or chronic alcoholism. However, tremor becomes of greater diagnostic significance, when after a seizure it occurs only in the affected side of the body. Changes in the voice, *e. g.*, in timbre, correspond for the larynx in diagnostic significance to the tremor and spasms of the visible musculature; a peculiar "bleating" not previously present, in the perhaps monotonous voice most commonly occurs early, especially during emotion.

The special "speech derangements," *i. e.*, the articulatory disorders due to paresis and lack of co-ordination, are usually very early provable in

their first indications. Therefore they are to be especially considered, possibly by the employment of difficult combinations of words, but which do not necessarily consist of articulatory snares, like many of the sentences usually recommended (the majority of nervous persons stumble over these, particularly during a medical examination). The best method of quickly becoming informed as to the speech is by having the patient read aloud.

In a diagnostic estimation of a definite articulatory speech derangement it is to be remembered that numerous excitable persons hereditarily predisposed, and neurasthenics with acquired excitability, have mild articulatory difficulties during emotion. Whereas an articulatory impediment of speech of recent origin, according to the statements of relatives, especially after a subjective seizure, is of greater diagnostic importance.

In the early changes in writing it is a matter of two differently operating causes: one consists possibly of abnormal innervation (paresis and manifestations of irritation) in the hand and forearm, the other in psychic (lack of attention, loss of memory, lowered esthetic feelings). Thus results, often quite early, very characteristic written evidences in the irregularly, hastily formed letters, unequal deviations from the line, blots, etc., besides absence of punctuation, erasures, omission or duplication of words, etc. In questionable cases where beginning paresis is suspected, for examination it is essential that specimens of the patient's recent and earlier writing be submitted, especially of those individuals who by occupation were accustomed to write clearly and accurately (school teachers, bank officials, government clerks, etc.) if valuable conclusions are to be expected. In ignorant persons who are not accustomed to writing, little of early diagnostic value is to be derived from their writing.

The writing of chronic alcoholics may often have the above characteristics, and is scarcely to be distinguished from that of the early stage of paresis.

There are a few of the more common subjective symptoms which at least are usually supplementary, yet retain their significance as early paretic symptoms from the standpoint of the assumed diagnosis, while in themselves occurring alone, they possess only a limited early diagnostic value owing to their ambiguity. They are: neuralgiform pains in the distribution of the trigeminal and occipital nerves, vague pains in the extremities, without being "lacerating," diffuse headache, or feelings of head pressure, finally derangements of sleep, even to complete, long continued insomnia.

The headache and insomnia are characterized in incipient progressive paresis by their special resistance to therapeutic measures; the neural-

giform, vague pains have scarcely anything characteristic. The psychic symptoms strictly are here presented last, contrary to the usual custom. In the developed disease they so characteristically control the clinical picture, are so uncertain and protean in the early stage, and for the certain diagnosis in the prodromal stage the difficulty in examination consists in the demonstration of the organic symptoms<sup>1</sup> which for this reason were first discussed.

The expert psychiatrist, for whom every sixth or seventh patient is a paretic, often makes the diagnosis very early with subjective certainty; simply from the peculiar general impression of a psychic personality, whose individual components are often hard to formulate; for the physician little versed in psychiatry that is the normal method of diagnosis or rather it should be that a suspicion of incipient progressive paresis excited by these anomalies, receives its confirmation by the certain determination of objective comprehensible symptoms from those presented.

Among the early psychic changes we often find subjective changes, an intense feeling of illness, in a certain measure a presentment of coming trouble, and also often thus comprehended by the patient, or a painful mental depression, which may be wholly objectless, *i. e.*, not needing to be united with concepts of corresponding color. This more or less plainly marked trait may be common to the severe neurasthenic and melancholic hypochondriac states of the prodromal stage. But it is more common that the first psychic changes, even if apparent to those about, are not comprehended by the patient.

One of the earliest manifestations in this respect is a changed reaction of the individual to the impressions of the world, particularly a generally increased irritability, be it to noises or the contrary, be it the mere daily oppositions to the will. The misproportion between the cause and intensity of the anger thus induced the exploding rage, is likewise found in severe functional neurasthenia, but with the difference that in the neurasthenic's emotional outbreaks the tendency to pass into disgust of longer duration, dissatisfaction, etc., is absent in progressive paresis.

Marked depressive emotions without proportional cause also occur; the complete loss of equilibrium in attacks of despair from trifling causes, to which many paretics are prone in the early stage, may be compared to the condition known as "drunken distress" manifested by many predisposed, but not sick individuals during intoxication; in the initial stage paretics quite often make wholly unexpected, yet intentional suicidal attempts in such sudden fits of displeasure; I knew a no-ways demented, usually very

<sup>1</sup> The contrast of "psychical" and "organic" symptoms is really a perversity. I do not doubt that almost all "psychical" symptoms of progressive paresis owe their origin to "organic" changes. Perhaps it would be more correct to say "local symptoms" or something similar, instead of "organic." However the connection as to what is meant is sufficiently clear.



proper paretic, who got into a dispute with his wife at dinner in regard to a wine market, arose, hurried away and threw himself in the river. These emotions of paretics are less persistent; the increased irritability runs parallel with heightened lability, and the insignificance of the causes which produce the change is also characteristic.

Premature loss of memory and judgment occurring gradually with lessened intensity of the higher (esthetic, logical, ethical) feelings is due to the lowering of the general faculties, observed as an initial symptom, in the occupation or business, the carelessness, etc., but especially the frequent harmless or gross breaches of customs, morals, or of the law even—occurrences which have long damaged such patients' reputation, ere they were recognized to be ill by the family or their physician. The depreciation in function of the motor phase of mentality is early manifested in the inability for long continued, close attention, as well as in the patient's torpid manner lacking the initiative, which often occur years before the beginning of changes noticeable as serious mental anomalies.

The proof of the presence of these symptoms, which in their totality form the complex of psychic enfeeblement, give others, possibly early psychic anomalies their characteristic shade, which is expressed by the addition of the adjective "paretic" and may readily be distinguished from the corresponding disturbances in functional psychoses. So we name the most important symptoms paretic euphoria, paretic grandiose ideas, paretic melancholic or hypochondriac delusions, paretic states of excitement.

The frequent combination of euphoria with paretic grandiose ideas, *i. e.*, indiscriminate concepts as to the personal faculties, position, financial ability, etc., often lead even in the early stage to those acts in which lie the social danger of an unrecognized progressive paresis. These included the cases in which as (apparently) the first symptom of the disease, orders and purchases are made far in excess of the conceivable demand, lavish expenditure to no purpose occurs, silly projects, preferably matrimonial, are undertaken; these often occur when the patient is being treated in a sanitarium or Kniepp cure for "nervous irritability" and where they have the same freedom of action as on their "travels for their health," which perhaps has long exceeded the faculty of decision owing to their mental condition.

When one hears or reads in the paper that a man of heretofore proper conduct has given orders for his own personal use (to choose an actual case) for fifty cheeses, three hundred dozen cigar holders, a cargo of champagne or a carload of quinin, the suspicion of a progressive paresis must at once arise; such and similar things are committed almost only by paretics.

The morbidly falsified idea of their own *ego* in relation to the world may naturally be orally expressed in grandiose ideas.

The grandiose ideas of paretics are readily distinguished from those of paranoia, negatively by the want of a preceding (to be anamnestically determined) development, by the absence of system and the stability of the concepts, positively by the simultaneously psychic weakness. The last fact also psychologically distinguishes the exultation of the paretic from the true manic, except that the majority of alleged "manias" in men of middle age are not manias, but early phases of progressive paresis.

The proof of psychic enfeeblement is the decisive differential diagnostic sign for the melancholic and hypochondriac ideas of the paretic and renders possible the recognition of modifications of the psychic picture not enumerated, even without attendant local symptoms. But the earliest stage of paresis may be hidden behind the mask of functional psychoses and neuroses, which need present none of the paretic traits at first or for a certain duration of the disease.

For the correct diagnostic estimation of this condition the knowledge of the fact is important that, except in paranoia and epileptic mental disorders, recent simple psychoses in men are relatively rare at the period of life which presents the maximum frequency of progressive paresis; whereas in women the functional psychoses at the same age present a higher frequency, in great part owing to the influence of manifold prejudicial agencies arising from propogation, while progressive paresis, as stated above, is three to four times as rare in men.

An apparently simple mania or melancholia, which occurs very often at this stage of life, unless it is a phase of a periodic or circular mental disorder long since proven anamnestically, with respect to the above fact of itself must awaken the suspicion of progressive paresis, and, in the interest of prognosis, lead the physician to make a very careful physical examination. Inversely, in women, a mania, melancholia or hallucinatory confusion does not as a rule conceal a progressive paresis, much less so as progressive paresis in women generally, but not always occurs in form of a slow, insidious progressive dementia.

In cases of mania, melancholia or hypochondriac depression the expert psychiatrist will often make a correct diagnosis with no paretic traits; the person of less psychiatric experience possesses in the proof of organic local symptoms the requisite diagnostic cue. At a time when the nature of progressive paresis was very little known, as also today, the warning is proper not to make a favorable prognosis of maniacs with very contracted or unequal pupils.

The differentiation between the early stages of progressive paresis and neurasthenia presents very much greater diagnostic difficulties, which

in many cases may be insurmountable at the moment of the examination. A series of symptoms is common to both diseases; feelings of illness, irritability, vertigo, in effect apparently similar if also of a very different origin, lowered ability, disorders of sleep and digestion, tremor in the face, tongue and hands; both have their maximum frequency in middle life; both preferably affect intelligent, active persons; excesses figure in the etiology of both, be it in pleasure, be it intellectually, and a formula suitable to many cases, but not to be proven in all, expresses this commonality, in that it says: *ceteris paribus*, etiologically, a progressive paresis is developed in those formerly syphilitic, a simple neurasthenia in the non-infected. Clinically we observed in both diseases the two following modalities:

Neurasthenia "precedes the progressive paresis," i. e., a neurasthenic, in whom for a long time the most careful examination can discover no true paretic symptoms, later becomes evidently paretic, perhaps after an apparently normal interval has intervened, or the progressive paresis "begins as neurasthenia," i. e., an attack of disease recognizable as paresis presents among other symptoms those which are peculiar to the severer forms of neurasthenia. Under the presumption of a careful examination the latter condition is the most frequent; the majority of paretics present, not at the time of admission to the hospital, but so long as they can be treated outside, the type of neurasthenia (plus more or less paretic symptoms).

The differential diagnostic signs, which are to be taken into account in the absence of organic local symptoms, are in part anamnestic, in part consist of the conditions found on examination; functional neurasthenia is a constitutional disease, which emerges from its latency under the influence of external pernicious agencies, in which, if the disease is fully developed, mild nervous anomalies of long duration, even from youth, may be ascertained from the patient; a severe neurasthenia occurring suddenly in a previously healthy man without ascertainable heredity, for which neither a traumatism or physical diseases (e. g., influenza), can be made accountable, must hence awaken the possibility of an incipient progressive paresis.

The neurasthenic depression is secondary, the result of unpleasant sensations or fears; it is susceptible at times of being diverted or corrected; the paretic's depression is primary, more intense, less susceptible, less interrupted by normal as well as euphoric phases. The neurasthenic observes and reports his symptoms in a painfully exact manner, also those which only exist in his imagination as, e. g., the loss of memory; the paretic presents objective defects in the same function, but of which he is unconscious. Functional neurasthenia, except the increased irrita-

bility, does not present the changes of character in the sense of lowered esthetic and ethical feelings, which early complicate the paretic type of neurasthenia; sudden, unpleasant emotions, especially spite and anger, do not have, as mentioned, the tendency tormenting the neurasthenic to pass into depression, which is hard to overcome and lasts for hours or days.

It is true of the other symptoms that in functional neurasthenia a series of phenomena is observed, which in paresis are of organic foundation, as, e. g., tremor of the face, etc., but that neither an increased tendon reflex accompanied by dorsal clonus, neither pupillary immobility nor apoplectiform seizures, neither spastic disorders nor objectively demonstratable diminutions of intelligence, occur. It is one of the most suspicious psychic symptoms when a debilitated neurasthenic suddenly becomes euphoric or develops grandiose ideas. The majority of patients who come to the physician in extreme anxiety that they might be paretics, are not such.

In spite of the presence of numerous differential diagnostic signs it must be stated that there are cases, which even on an exact examination in this respect do not permit of definite decision as to whether it is paresis or neurasthenia at this time. Similar difficulties, if perhaps not so frequent as in neurasthenia, are presented in the differentiation of the early stage of progressive paresis from the various conditions in chronic alcoholism. Besides paretics in the initial stage are often considered by the laity and physicians as simply "drunk," yet conditions quite often occur which do not permit of a definite diagnosis at the moment of examination.

In chronic alcoholism we find symptoms which it has in common with progressive paresis, the insomnia, diminished intelligence, blunting of the higher feelings, loss of energy; we find tremor and spasms in the face and extremities, possibly epileptiform or epileptic seizures, often absence of the patellar reflex in consequence of peripheral neuritis. If the disturbances in the tongue and face, and so those of speech, are very pronounced, a type very similar to progressive paresis may result and there is in fact—at least in literature—an "alcoholic pseudoparesis."

When, however, from these cases those are excluded which are simply true paresis in an inebriate complicated by several alcoholic symptoms (ideas of jealousy, active sensory deceptions) and further exclude those which have nothing to do with paresis, but are to be considered as chronic alcoholic mental enfeeblement with very intense local symptoms, nothing now remains of the "alcoholic pseudoparesis."

Besides the variations in the speech derangements (usually not characteristic in alcoholics) the presence or absence of the reflex pupillary immobility must be regarded as the most important differential diagnostic factor; on careful ex-

amination, chronic alcoholics very rarely present real reflex immobility. As a rule several weeks of enforced abstinence affords a further diagnostic fact; when the motor symptoms of irritation generally lessen, while the sluggish pupils begin to react better and the intelligence materially improves.

Difficulties often attend the practically important differentiation of beginning progressive paresis from certain nervous conditions after accidents.

In so far as it is a matter of simple neurasthenia following traumatism, what has been said applies here; but there are cases, without a cranial injury necessarily having preceded, in which besides apathy, mental depression, vertigo, hemiparesis, tremor with spasms in the tongue, face and hands, possibly articulatory speech disorders are found, while a certain torpid, obstinate condition prevents testing the intelligence, cases which may be exactly like certain types of progressive paresis, and yet do not belong to them; it is found that these patients present the same picture after three or four years without having become demented, etc. It is well then after a severe accident to be cautious as to the diagnosis of progressive paresis in the cases in which neither reflex pupillary immobility or a progressive intellectual defect is to be proven.

The differential diagnosis from senile dementia and the various forms of dementia after apoplexy very often fail in practice; the majority of cases, which, according to my experience, are brought to the clinic with the diagnosis of "progressive paresis," belong to these two categories. An age limit is not to be fixed for the diagnosis of senile dementia in view of the cases of *serium praecox* and abnormally late development of paresis; it is also to be stated that the slowly developed parietic dementia in old cases of tabes, *e. g.*, is not to be distinguished from senile dementia. In general slight material will at first indicate senile dementia. In the cases of questionable senile dementia without tabes the organic local symptoms are decisive. Practically there is no great difference whether, *e. g.*, the dementia of a man in the latter part of the fifties is regarded as a late parietic dement or as an early senile.

What distinctions exist between the apoplectic form seizures of progressive paresis and those of arterio-sclerosis, has already been set forth; besides it is to be considered as a differential diagnostic sign that those with arterio-sclerotic seizures do not present in the intervals the degree of spite of possible euphoria, grandiose ideas are not developed and the patellar reflexes are almost never absent.

The differentiation from multiple sclerosis is often difficult in the latter stages of those cases whose development has not been observed; it may be very questionable at first whether a

spastic paresis present as a single symptom is the initial phase of a multiple sclerosis or a progressive paresis; the distinction occurs as soon as evident intellectual disturbances are noticeable, which in multiple sclerosis is to be expected later and then only slightly pronounced; attacks of vertigo, common to both diseases, are not a differential diagnostic sign; true nystagmus is almost never found in progressive paresis. The sort of speech disturbance is not always decisive.

A differentiation of beginning progressive paresis from diffuse syphilitic processes of the cortex is not possible at present, also rarely "*ex juvantibus*"; antisyphilitic therapy, which may be successful in gumma, *e. g.*, only slightly effects the diffuse processes.

The diagnosis of tumors consists in the proof of positive tumor symptoms, first of the choked disc.

The conditions described as "encephalopathia saturna" are as yet too indefinite to be exactly diagnosed; the anamnesis and proof of lead symptoms (blue line, neuritis) play the chief rôle in these cases.

Irrespective of the general significance to mankind the establishment of a disease whose diagnosis is attended by an absolutely unfavorable prognosis illustrates the practical significance of the early diagnosis socially to the individual according to the extent and kind of relations he has with the world. As it is true that the diagnosis immediately determines the prognosis so it is also true that an early diagnosis permits what is to be attained therapeutically. Not that by medicinal agents a marked retardation of the degenerative process in the nervous system is to be expected; that is in no way to be hoped for, from the repeatedly recommended antisyphilitics; but the consequences of the early diagnosis can and should be that the most important therapeutic factor, absolute rest, is procured which favors the occurrence of remissions and may effect an improvement, which makes it possible for the patient to return to his occupation for a time.

This rest, the removal from excitement and excesses, to which the disease of itself disposes, is not to be afforded the patient at home, except under the most favorable conditions; the hospital is only to be considered usually where the duration of life is prolonged by proper care, prevention of suicide, etc. Besides the commitment to a hospital certain duties accrue to the physician by the early diagnosis of progressive paresis, *e. g.*: in respect to the best prevention of marriage, often euphorically planned in the initial stage, expert evidence in cases of accident, as well as the eventual motion by the family for the patient's disenfranchisement. The certificate of its necessity, owing to the ability to dispose of property being impaired or destroyed by the mental condition, is made by the physician, who



is almost always made responsible by a certain diagnosis of progressive paresis. Complete disenfranchisement protects the patient and his family from financial losses, which otherwise frequently occur by the purchases, orders or contracts of the paretic in the initial stage.

In opinions as to disenfranchisement, as well as in criminal affairs, it is not only a matter of proof to the judge of a quantitatively more or less pronounced intellectual defect, but the certain establishment of the fact of the existence of the serious organic brain disease to which the numerous disturbances occurring in the emotional and volitional functions—the “ability to dispose of property” on the one hand, the “freedom of the will” in the legal sense—may usually appear principally as exceptional.

## Formulæ.

### Pertussis.

- R Infusion of belladonna leaves..... gr. viij.  
Distilled water..... 5 v.  
Antipyrin..... gr. xv.  
Syrup of gooseberry..... 5 i.

M. S. A teaspoonful every two hours for a child of five years.

As a rule, there may be given, for each year of the child's age, gr. viii. of belladonna leaves in infusion and the double dose of antipyrin.—ESCHLER.

### For Colic in Infants.

- R Tr. lobelia..... gtt. i.  
Aque..... 5 i.

S. 5 i. at a doze; give warm and repeat p. r. n.  
—HOLTON.

### Tinea Circinata.

- Creosote..... 20 min. (1.25 gme.)  
Oil Cade..... 3 fl. dr. (12 gme.)  
Sulphur..... 3 dr. (12 gme.)  
Potassium Bicarbonate..... 1 dr. (4 gme.)  
Lard..... 1 oz. (30 gme.)

Externally.

—DR. VAN HARLINGEN, *Dom. Med. Month.*

### Antineuralgic Pill.

Dr. D. E. Ruff (*Med. Record*) has had good results from the following combination:

- Strychnine Sulphate..... 1 grn. (0.01 gme.)  
Quinine Sulphate..... 1 dr. (4 gme.)  
Reduced Iron..... 45 grn. (3 gme.)  
Extract Gentian..... 30 grn. (2 gme.)

Make into 60 pills. One three times a day.

This pill is said to be specially good for facial and gastric neuralgias. If a marked malarial element is present in the case Dr. Ruff adds 5 grains (0.3 gme) of arsenous acid to the above formula.

### For the Relief of Painful Affections of the Bladder, Prostate or Urethra

the following have proved efficacious:

- R Morphin hydrochlor..... gr. ij.  
Atropin sulph..... gr. i-6.  
Aq. dest..... 5 iij.

M. Sig: From 30 to 80 drops should be injected into the rectum.

In addition, should fever be present, the following is advised:

- R Cocain..... gr. xiv  
Antipyrin.....  
Sod. salicyl..... aa 5 iiss.  
Aq. dest..... 5 iij.

M. Sig.: Inject 80 drops per rectum three times daily.—*Amer. Pract. and News.*

### “Syphilis.”

- R Tydrarg chlor (corrosivi)..... gr. i.  
Tinct. cinchona comp..... 5 iij.

M. S. One to two teaspoonfuls after meals

### La Grippe.

- R Tablets antikamnia et salol..... grs. v.  
Noxx.

Sig.: One every 3 hours.

### Free Urinary Deposits.

- R Acid Boracic..... 5 i.

Sig.: A half teaspoonful in water 3 times a day is excellent to clear the urine.

### Intermittent Heart (Neurosis).

- R Potass Bromidi..... 5 ii.  
Tinct. Hyoscyami..... 5 iij.  
Elix Aurantii..... 5 vi.

M. S. A tablespoonful 3 times a day.

### Biliousness.

- R Massa Hydrarg..... gr. xii.  
Pulv Rhei.....  
Aloes Socotrina..... aa gr. vi.  
Olei Caryophilli..... gu. iij.  
Podophyllin..... gr. i.  
M. Ft. pil..... No. vi.

Sig: One every 3d night at bedtime, following with a saline cathartic if needed.

### A Vaginal Antiseptic and Astringent.

The *Journal de medecine de Paris* attributes the following formula to Lutaud:

- R Alum..... 900 grains;  
Boric acid..... 900 grains;  
Carbolic acid..... 20 drops;  
Oil of wintergreen..... 20 drops.

M. A teaspoonful to be dissolved in a pint of hot water for a vaginal injection.

### Ergotine in the Treatment of Hemoptysis in Children.

The following prescription (*Gazette hebdomadaire de medecine et de chirurgie*) is attributed to Cadet de Gassicourt:

- R Ergotine ..... 1 part;  
Syrup of rhatany..... 10 parts;  
Distilled water..... 100 parts.

M. S.: A dessertspoonful every hour.—*Med. Rec.*

## SOCIETY REPORTS.

### PHILADELPHIA PEDIATRIC SOCIETY.

Stated meeting, March 8, 1898. the President, Frederick A. Packard in the chair.

**DR. R. G. LE CONTE** presented a patient illustrating  
**Amputation in an Infant Four Weeks Old, for  
Gangrene of Leg.**

(See page 108)

#### DISCUSSION.

**DR. PACKARD.**—Did the manifestations of vasomotor trouble, the sloughing in the right buttock and the areas of local cyanosis disappear entirely?

**DR. LE CONTE.**—Yes, they healed very promptly. There have been no further manifestations to my knowledge.

**DR. WILLIAM OSLER** read a paper upon

#### Dilatation of the Colon.

Also one upon

#### Absence of the Abdominal Muscles.

#### DISCUSSION.

**DR. J. P. CROZER GRIFFITH.**—I was struck in reading Treves' paper by the way in which he speaks of dilatation of the colon. He divides it into two classes. First, the dilatation beginning in adult life, and of this class he says that probably very few, if any, of the reported cases are idiopathic. Second, the dilatation which is probably congenital or at least begins very early, and of this he says that still fewer are idiopathic. According to this rule there would seem to be no such thing as idiopathic dilatation of the colon. I think probably the majority of the cases reported are not idiopathic in the true sense of the term. Yet there seems to be evidence that certain cases really do belong to this category. In these the only cause for the constipation, which is such a persistent symptom is the fact that the colon is dilated and has been unable to expel the fecal matter and no cause for this dilatation can be discovered even post mortem. I came across a case of this nature a year ago, shortly after Martin published his interesting review in the *Montreal Medical Journal*. The case was entirely typical of the disease, and even at the autopsy no cause for the condition was found. I have seen also one other case which appears similar. Here are the photographs of the two children.

**DR. J. MADISON TAYLOR.**—I speak with some diffidence of a case which came under my observation at the Children's Hospital some years ago, which puzzled us a good deal at the time and had points of marked similarity to those described. It subsequently came under the care of Dr. Fussell, of Manayunk, who tells me that it died about two years ago of an enterocolitis. There was no post mortem, but Dr. Fussell was of the opinion that the cause of death was atrophy of the intestinal walls, which gave rise to the extreme distention. This was a baby seventeen months old when I first saw it; nursed by the mother, a perfectly vigorous, healthy woman. The abdomen of the child had been noticed to be very much enlarged as far back as the mother could remember, and when I saw it, it was excessively tympanitic. The lower part was dull on percussion, and felt boggy, suggesting accumulated feces. This after a time was relieved in a great measure, although never completely, even after the bowels, from various devices, had been pretty thoroughly emptied. In the left hypochondriac region there was an enormous dilatation, distinctly gaseous.

The patient lived in the extreme northern limits of the city and came to the Dispensary only at long intervals, which prevented our employing any very systematic or continuous measures. Attempts to wash out the bowels were met with great difficulty. A soft catheter could only be introduced a short way at first, after various attempts on our part, while the child was in the Trendelenburg position. After many efforts it entered the bowel but never satisfactorily. Faradic electricity was repeatedly used to stimulate the intestinal walls, but with little success. The interesting feature was the fact that there was relatively little deterioration of health and fair evacuation of the bowels could be secured occasionally spontaneously. We were able to satisfy ourselves that there was no abdominal tumor other than the fecal accumulation. I am satisfied that the condition was a congenital dilatation of the colon.

**DR. F. A. PACKARD.**—In the first case there was a concretion in the intestine. I would like to ask Dr. Osler whether the concretion could have had any causative relation or whether it was simply the result of dilatation. In the fourth case, the fatal termination seems to have been not due to the dilatation of the colon at all, but entirely to the cardiac condition. While the prognosis is as a rule unfavorable, in this case, barring the heart lesion, the boy might have lived a considerable time.

**DR. GEORGE WOODWARD** read a paper upon

#### Clinical Method for Estimation of Breast-Milk Proteids.

(See page 108)

#### DISCUSSION.

**DR. J. P. CROZER GRIFFITH.**—I think only those who have been particularly interested in this question of the estimation of the ingredients of milk realize what a particularly valuable contribution this is to our medical knowledge. It is the first step toward giving the ordinary practitioner, not the chemist, some means of determining for himself how rich in proteid material the mother's milk may be. Heretofore, only those living in cities have had any means whatever of having examinations made and even then it was beyond the power of those whose patients were not well-to-do, unless there was some one who had been as kind as Dr. Woodward in his offer to do this work without charge. Some months ago I talked to Dr. Woodward about this matter of a ready method of estimating the proteids and learned that he was working at it, so I have no doubt this is the result of long experimentation and thought and I for one am very deeply grateful to him. He will, it is to be hoped, go on and apply this method to the estimation of the proteids in cow's milk. There seems no reason why the same procedure should not answer. If it does it seems that anyone of us will be able to tell with the centrifuge whether the cow's milk we receive is properly rich, in proteid material, just as we can with regard to the fat.

**DR. BURTON K. CHANCE** read a paper entitled,  
**Affections of the Conjunctiva Observed in Acute  
Infectious Diseases in Children.**

(See page 108)

#### DISCUSSION.

**DR. PRENDERGAST.**—I am particularly interested in these cases because I now have about sixty cases of measles at the St. John's Orphan Asylum. Asepsis of

the conjunctivæ is an impossibility. The nearest thing to this we can do is to flush the conjunctivæ with a mild bichloride solution, 1 to 50; strong bichloride solution would injure the cornea and epithelium. Dr. Chance's idea of treatment in these cases is excellent. The yellow oxide of mercury about the lids and warm boracic acid wash are very grateful, but I would advise all to be extremely careful of bichloride of mercury. If used too strong it simply makes the soil more suitable for bacteria which spread to the layers of the cornea. Since the conjunctiva is exposed to the atmosphere and dust, wiped with unclean cloths and hands and washed in dirty water, it is one of the best soils we have in the whole body for the cultivation of bacteria. Even the bacillus tuberculosis, the gonococcus, and the diphtheritic bacillus have been present in many cases, the proper thing in these cases is to thoroughly flush with warm boracic solution or my own belief is that normal salt solution or warm distilled water will do as much good as anything. The operators of the present day who are doing cataract operation simply clean the cul-de-sac as best as they possibly can. They open the eye with fear and trembling because they have a good soil for bacteria.

## Periscope.

### MEDICINE.

Regarding the treatment of Mania, Magnan advises as follows: 1. No restraint and rest in bed. The patient should never be put in a cell except as an absolutely last resource. 2. Baths, bromid and chloral. 3. When there is intense excitement and profound insomnia, hyoscin hydrochlorate may be used subcutaneously. 4. The most concentrated nutrition must be given, frequently repeated, and all forms of fermented liquors interdicted. The straight jacket is never used. To quiet the patient, baths at 33° C. are given, the patient being kept in the water for from two to five hours, and at the same time cold applications are made to the head. If the patient is extremely maniacal wet packs may be used instead of the baths. In the evening the patient should receive from 40 to 60 grains of potassium bromid, and two or three hours later from 20 to 40 grains of chloral. After a week or so, when the patient has quieted somewhat, the dose of bromid is diminished and the chloral is given only occasionally, sulfonal and trional being substituted. Patients rebellious to the bromid-chloral medication often take increasing doses of laudnum with very good effect. Morphin should not be given. Over-medication is the mistake usually made in the treatment of acute mania. —*Post-Grad.*

**Treatment of Syphilis.**—A. Neisser considers that the results obtained in the treatment of syphilis by the inunction of blue ointment are referable, not to the comparatively small amount of the agent which actually makes its way through the skin, but to the inhalation of the vapor of mercury, which the warmth of the patient's body is constantly causing to be given off. He recommends that patients spend as much of their time as possible in a single, well-warmed room, taking as little out-door exercise as is compatible with health, in order that they may be constantly surrounded by an atmosphere charged with the volatilized metal. His routine is to apply four grams of a 33 1-3 or 50 per cent. ointment, either at bed-time or on rising (no friction is necessary), increasing the amount by one gram every tenth application and continuing the treatment for forty-two days. If the mouth is properly cared for by the plentiful use of astringent and antiseptic lotions the author thinks that stomatitis and salivation should never be produced, although a

mild degree of either does not in most cases require suspension of the treatment for any great length of time.—*Med. Rec.*

Considering **irregular menstruation in young women due to anemic conditions**, Dr. Lewis, of the Fanny Allen Hospital says in the *Vermont Medical Monthly* that if you correct the anemic or impoverished condition of her blood the physiologic function of the uterus will be resumed as naturally as that of any other organ. Countless remedies have been presented to the profession, but far and foremost above them all is iron, notwithstanding certain high authority to the contrary. Arsenic is certainly valuable but it ranks far below iron or even manganese in the therapeutics of anemia. In order to be most efficacious, however, the iron should be in its most readily assimilable form and until recently the carbonate and albuminate have been supposed to present this requisite in the highest degree. But since manganese has grown in favor as an adjuvant to iron, a new preparation has been submitted to the medical profession and in every way it has proven itself an ideal one. I refer to Dr. Gude's preparation of the peptonate of iron and manganese, known as pepto-mangan. This admirable combination of iron and manganese is readily taken into the human economy and appropriated to its needs, without deranging the weakest alimentary tract, or hindering in any way the normal processes of digestion, assimilation and excretion. It should be given in water or milk in teaspoonful doses after meals, and its administration is invariably followed by the results desired.

But in order that the medical treatment of chlorosis may be most valuable and efficient, it should be augmented by auxiliary treatment consisting of careful attention to diet and exercise. It goes without saying that the food of an anemic girl should be most nutritious and particularly abundant in albumen, while the exercise should aim to provide greater quantities of oxygen in the form of pure air, without lowering the vitality. Walking, skating, or bicycling in moderation are all able to supply the demand for exercise.

Treatment laid down on the above lines, followed out in every instance with good habits of hygiene and a careful observance of Nature's demands, will regulate the various functions of the body, and the menstrual function will prove no exception to the rule.

### GYNECOLOGY.

Liell reports five cases of **septate uterus and vagina**. The first case, unmarried, gave a history of menorrhagia and menorrhagia, due to glandular degeneration of the endometrium, the uterus being found, upon examination, to be divided by an incomplete septum, the left portion of the uterus being but one-third the size of the right. The septum in the vagina was in close contact with the left wall of the vagina. Both canals of the uterus were thoroughly curetted and drained, with entire relief of symptoms. Case two was pregnant, about the third month. The condition was one of complete septate and partly bicornuate uterus, the left portion of the uterus and cornua being regularly enlarged, proportionate to the month of pregnancy, as compared with the right, the latter entering into the case but little. A diagnosis of pregnancy in the left half and horn of the uterus was made. Unfortunately the patient was lost sight of, subsequently. The case had been considered by several physicians who had examined her, as one of probable fibroid tumor of the uterus. The third case was one of typical complete septate uterus and vagina, the patient undergoing operation for an ovarian cystoma. The fourth case was one of medium septum of the uterus only, the septum forming from the fundus downward to within an inch of the external os. This condition was one in



which the cavity of the body of the uterus, as well as the upper third of the canal of the cervix, was divided into two parts by the septum, there being a common canal for the lower two-thirds of the cervix. The fifth case gave a history of having aborted two weeks previously, a curettage being subsequently performed, metrorrhagia, however, having persisted. A suspicion of some abnormality associated with the uterus existing, the author was called in consultation, when examination proved the presence of a septate uterus and vagina, the former being incomplete, the left cervix being much smaller than the right. Anteversion was also present. Curettage of both uterine canals was advised. In remarking upon the foregoing cases, it is shown that it is the exception for a septate vagina, longitudinal, not to accompany a septate uterus, the septum of the former, however, being much less dense. The septum is termed complete if extending from the external os to the fundus, and incomplete if extending but part way in either direction. The presence of this anomalous condition offers little, if any, interference with menstruation, though pregnancy is less apt to occur, in that the cervixes are smaller than in the normal cervix and the canals narrower. Abortion or repeated miscarriages are the usual accompaniments of a septate uterus. Surgical interference may be advised where the septum of the uterus is incomplete and thin. Hemorrhage may also occur from retention of attached portions of membrane, due to imperfect uterine contractions, the decidua or placenta occasionally occupying both divisions of the uterine cavity.—*Virg. Med. Semi-Monthly.*

TAILLEFER (*Gaz. Hebd. Med. et Chir.*) alludes to the theories which have been advanced to explain the origin of vaginal cysts, and brings forward an observation which apparently supports the hypothesis of a congenital origin. It was that of a small vaginal cyst discovered only by the use of the speculum. The patient in whom it occurred, a woman thirty-one years of age, was suffering from cervical endometritis and a deeply torn cervix. The cyst was on the left half of the anterior vaginal wall about four cm. from the vulva. It was extirpated and was found to contain a dark chocolate-colored and viscous fluid like that seen in the ovarian cysts. The wall consisted of a layer of epithelial cells and one of connective tissue containing unstriped muscular fibers; in this respect also it resembles an ovarian cyst. Taillefer believes that his case demonstrates the identity of nature of ovarian and vaginal cysts, and that the latter originate in remnants of the lower part of the Wolffian body, the canal of Gäartner.

WENDEL and BAILEY, (*Med. Rec.*) report fourteen cases of **multiple uterine myomata** on which they operated and with conservation of the uterus. As to what constitutes the limit of size of fibroid tumors which can be removed by conservative vaginal section, the authors consider that much depends upon the localization of the growths and the experience and skill of the operator. The preparatory treatment is the same as for hysterectomy. To avoid infection from the anus, a good-sized piece of sterilized rubber dam, with an aperture corresponding to the size of the vulvar commissure, is stitched to the fourchette and thighs. The perineum can then be pushed up or back, or an assistant may insert his finger into the rectum without the least danger of infecting the field. The uterus is thoroughly curetted and washed out, but not packed, because, should the uterine cavity be opened, the gauze would then interfere with suturing the wall. Erosions are burned with the Paquelin cautery. The vagina is thoroughly flushed out with sterilized water and swabbed dry. Two lateral retractors are inserted, widely

separating the labia. An incision is made anterior or posterior to the uterus, or both incisions may be required. Unless the tumors be limited to the anterior aspect of the uterus, it is advisable first to incise the fornix in the post-cervical crescentic fold, open Douglas' pouch and explore. If the anterior fornix requires opening, the authors employ the saggitto-coronal incision. With reasonable care, the ureters are in no danger of injury, and the amount of space gained compensates amply for the additional time and trouble. The peritoneal apertures should be closed to the uterus, and extended well on to the broad ligaments. A vesical retractor keeps the bladder out of the way. Every portion of the uterus is now accessible. A stout volsellum is attached to the cervix and given to an assistant. A Hegar uterine dilator is introduced and the organ carefully palpated between the finger and the dilator. An incision is then made over the most prominent tumor and the capsule stripped back; if larger than a hazelnut, the tumor is grasped with a small volsellum and morcellated; if not, it is simply twisted from its attachments, and the bed sutured with interrupted buried sutures, drawn tight. When there are other growths juxtaposed to the one removed, the bed is not sutured until the entire nest is extirpated. Blunt dissection must be employed wherever possible. Whenever the uterine cavity is opened, the sutures shall be so placed that when the sides of the wound are apposed the strands are not exposed to infection. Spaces left in the parametrium should be drained with gauze strips brought into the vagina. The wounds are then swabbed dry, sutured, or left open, according to the requirements of the case. The vagina is packed with sterilized gauze, which is changed every second day. If everything goes well, the patient may sit up on the eighteenth day. The operations were all tedious, but the patients left the table with very little, often no shock. None died. All except one convalesced without unusual incident. There are no unsightly scars, neither will there be ventral hernias. In one of the series of fourteen cases, a small tumor was found in the posterior wall of the corpus two years after operation; the other thirteen have shown nothing suspicious up to the present time. The most distorted uteri regained a fair degree of symmetry. Pregnancy occurred twice, one going to term; the other aborted by criminal induction at the second month.—*Post-Graduate.*

RODEMACHER (*Centralblatt für Gynäkologie*), holds that all cases of so-called **carcinomatous degeneration of fibromyomata uteri** are in reality simply secondary carcinomatous infiltration of the tumor from primarily diseased endometrium. He cites a case in which, on post-mortem examination, it appeared that two interstitial fibroids were undergoing carcinomatous degeneration. But upon careful study it became evident that the two neoplasms present were in reality invaded by cells from a malignant process which had developed in the endometrium. The mucous membrane covering one of the tumors was entirely replaced by carcinomatous tissue.

## OBSTETRICS.

Herrenschneider (*Br. Med. Jour.*), strongly recommends the use of antiseptic therapeutic measures in **Puerperal Fever** cases. He combats the theory that curetting opens up blood-vessels and lymph-channels. These are cut, but packing with iodoform gauze produces contraction of the uterus, which prevents absorption. This tampon is better than ergot, because the latter so acts as to cause the uterine contractions to close the os and retain the poisons, whereas the tampon retains the os patent.

R. S. Martin, (*Med. Reg.*) in the light of facts drawn from letters addressed to several of the prominent obstetricians of this country, offers the following conclusions as to the **advisability of chloroform in the second and third stages of labor.**

1. That it is safe and advisable to use chloroform in the latter part of the second stage of labor if the case demands it, only producing incomplete anesthesia in most cases.

2. That it should never be given in the first stage of a normal labor because of reasons mentioned. If the first stage be protracted, it may sometimes become necessary to give either chloroform, chloral by the rectum, hot baths, or morphia.

3. That chloroform should never be given in the third stage of labor, as it predisposes to hemorrhage. In all cases in which it has been administered, more than ordinary precautions should be taken to prevent postpartum hemorrhages.

4. That labor is a physiologic process, and when conditions arise making it pathologic chloroform is necessary just as an anesthetic is demanded in any surgical procedure.

WALLACE (*Am. Obst. and Gyn. Jour.*), writing of **simulation of fetal heart sounds**, says he has very frequently felt the need of a means to simulate the fetal heart sounds in the manikin room. Having been in the habit of using the text book simile of "a watch under a pillow," it occurred to him that a ticking watch might actually be used to fix in the students' minds the location of the heart sounds in the various presentations and positions. To do this a good-sized fetal cadaver was selected and a three-inch incision made over its sternum in the median line. The bone was bared and removed by scissors, exposing the pericardium. The pericardial sac was incised its entire length, the heart exposed and removed, after ligating the great vessels to prevent the escape of injection material. The edge of the pericardial wound was then attached to the lips of the skin incision. This shut the sac off from the rest of the thoracic cavity. A cheap, loud-ticking watch is sealed up in a rubber "gonorrhea" bag to keep it dry, and placed in the pericardial sac. A few turns of a roller bandage around the fetal thorax will retain it in place. The fetus may now be sealed in its rubber uterus with a suitable quantity of water (liquor amnii), placed in the phantom, and several layers of towels superimposed to represent the abdominal walls. It might be said that the object of opening the pericardial sac is to place the watch in as nearly as possible the location of the heart, for if the watch were merely fixed to the chest on the outside of the body it would not illustrate the fact that the anterior surface of the child does not transmit heart sounds as well as does its dorsum, owing to interposed fetal members and liquor amnii. The following may now be demonstrated:

First, that the fetal heart sounds are best heard in dorso-anterior positions, and faintly, if at all, in dorso-posterior positions.

Second, that the fetal heart sounds are best heard on that side of the median line in which the dorsal plane lies.

The object of this device is not to familiarize students with the characteristics of the fetal heart sounds *per se*, but to impress upon them their location in the various presentations and positions.

### THERAPEUTICS.

#### Pruritus of the Genital Organs.—Scrotal.

Phenic Acid.....	3v.
Glycerine .....	3iijss.
Proof Spirit.....	3vi.
Water .....	3x.

From one to four tablespoonfuls in a glass of hot water to bathe the parts three or four times a day, and twice a day a wafer containing sulphate of quinin and bicarbonate of soda is swallowed. In pruritus of the vulva, Professor Tarnier prescribes:

Bichlorid of Mercury.....	grs. x.
Alcohol .....	3ss.
Rose Water.....	3v.

After washing the region with soap and tepid water the patient passes rapidly a plug of cotton wadding, steeped in the solution, over the seat of the itching. The first sensation is that of burning, but this is quickly relieved by applications of cold water. The subsequent lotions become less and less painful, and the cure is generally rapid.—*Brocq. Med. Press.*

#### A New Staining Method for Sections of the Skin.

The portions of skin are placed for 24 hours in a saturated solution of sublimate, containing 5 per cent. bichromate of potash and 0.6 per cent. sodium chlorid. Sections are cut in paraffin. The sections are stained for 15 minutes in slightly heated picrocarmin, washed in water and then stained 30 minutes in alum hematoxylin. The sections are next stained one and one-half minutes in a saturated solution of acid picronitr., until the dark red epidermis can be distinguished from the light rose-colored corium. Wash in water, dehydrate, clear and mount. The horny layer and blood are stained yellow, smooth muscle structure gold-yellow, the small-celled infiltration dark violet, the rete Malpighi violet. The staining is very permanent.—MAMAROWSKY, *The Post-Graduate.*

At the meeting of the Union for Internal Medicine in Berlin, FRANCK (*Med. News*), presented two women whom he had cured of **trigeminal neuralgia by injections of a watery solution of osmic acid**, 1 to 1.5 per cent. Sometimes a single injection suffices; but if the nerve is not found by the first injection, it is necessary to repeat the attempt. The injection itself is painful, but it is followed by anesthesia in the region of distribution of the nerve. Eulenberg endorsed this statement, cautioning the members always to have a freshly prepared solution on account of the readiness with which osmic acid decomposed.

Dr. Jessner states (*Der Aerzt. Prak.*), that **ichthyol is an excellent means of introducing sulphur into the system**, and that it exerts a remarkably beneficial action, the digestion being decidedly improved. Even weak stomachs bear it well, and although it at first gives rise to unpleasant eructations, these soon cease. He employed the remedy in a 50-per-cent. aqueous solution, of which from 20 to 30 drops were given with peppermint-water, beer, coffee, etc., in gelatin capsules, or in pill form. When patients were very sensitive to the odor and taste, he ordered the pills to be silver-coated. He also refers to ichthalbin, a chemical compound of ichthyol with egg-albumin, occurring in the form of an odorless, tasteless powder, which has been introduced as an admirable means of employing ichthyol pure internally. The ordinary dose of ichthalbin is 4 gm. (1 dr.) a day.—*Am. Med.-Surg. Bull.*

**The Sleep Problem.**—As town life extends and intellect is aroused, the problem will be more and more that of too little, not of too much sleep. Perfect or nearly perfect health is of course the first condition of sound sleep. But scarcely any one is quite healthy, and so we must aid the sleepless to acquire that which is lacking. The one great thing to do is to fatigue the attention; not only to tire out the body but also the active mind; to quiet the vasomotor centre and so drive the congested blood from the brain. Quiet and regular habits, a certain monotony of light evening

occupation, will tend in this direction, while a great variety of evening engagements is generally fatal to the victim of insomnia. It is unwise to go to bed on either an empty or very full stomach; a slight meal before rest is the wise course. A hot bath, the last thing, taken under the following conditions, is perhaps the very best aid to sleep: As recommended by Eccles and others, the bath should be taken in a room with a temperature of 65° to 70° F. The patient should stand with his head over the edge of the tub, douching head and face with water at 100° F. The cooling of the body by the air and the hot sponging of the head first send blood to the brain, dilating its vessels. Then the entire body, except the head, is immersed in a bath at 98° F., rapidly raised to 105° or 110° F.; in a few minutes the bath is left, and the body wrapped in blankets, which absorb the moisture, and with the least possible exertion the patient gets into his night clothes and to bed with a warm bottle to his feet and perhaps a little warm liquid food.—*Spectator*.

M. JOUIN reports that he had treated metritis and its various complications, but more particularly gonorrheal endotrachelitis, by means of **applications of oil of wintergreen**, and with success. He states that in some cases the medicament had found its way into the Fallopian tubes and cured old cases of salpingitis.—*N. Y. Med. Jour.*

JACOBY (*Munch. med. Woch.*), starting from the fact that phthisis affects first those parts of the lungs worst supplied with blood, argues that the course of the disease may be **favorably influenced by improving the flow of blood to the apices**. He considers that the deficiency in blood of these parts is largely to be attributed to the influence of gravity, and that its ill-effects result from the absence of the natural protective mechanism, the blood containing alexins and similar necessary bodies. The erect posture is thus favorable to apical phthisis, which is commonest in man and monkeys; similarly, the longer the chest the greater the resistance to the entry of blood into the apices, and the consequent liability to tuberculosis, which is also favored by the sitting posture. It is curious that kyphosis, although usually of tuberculous origin, leads to pulmonary congestion, and is hence but rarely associated with phthisis. The author's object is to determine the flow of blood to the apices, just as Bier determines it to the region of tuberculous joints; to this end he employs two methods, a thermo-mechanical and a postural, the latter with the object of effecting what he calls an "autotransfusion." The apparatus for the former consists of a bath bed in which the patient lies, so that the shoulders and consequently the apices are the most dependent parts. The thorax is enclosed in a hermetically sealed india-rubber vest, under which hot water is allowed to play through eight tubes, four in front and four behind, connected with a pump. The shoulders and loins are supported by air cushions. The water is passed by a pipe back to the heating apparatus, by which it is maintained at a constant temperature. This is at first 30° to 35° C., but is gradually raised to about 45° C., which is found to give the best results; two baths, each of thirty minutes duration, were given daily. The immediate results were greater comfort and ease in respiration and expectoration; the headache which followed in some cases was due rather to the position than the treatment, which the author regards as conditioning a hyperemia of the lungs, particularly the apices. After the hot affusion is over, the patient gets up, is rapidly and thoroughly dried, and his shoulders are wrapped in a Winternitz's moist bandage; he then undergoes the recumbence cure, or autotransfusion. This consists in being supported with the legs and body elevated above the chest for two periods of three hours each per diem. By a hammock device this part of the

treatment can also be carried out during sleep. By these combined treatments Jacoby claims that better nutritive conditions are established in the pulmonary parenchyma, further wasting is checked, the tubercle and other bacilli are destroyed, and a more perfect moistening of the bronchial mucous membrane effected. Hence the sticky secretion becomes more fluid, and expectoration much easier. The raising of the legs above the thorax must be gradually increased; hemoptysis is almost the only contraindication to the treatment. The author gives figures illustrating the apparatus made for him for its performance. Of twelve cases treated by Nahm in this way at the Rupertshain sanatorium two could not continue with it (probably from its being pushed too rapidly), but the others were all improved, though the changes in their symptoms and physical signs varied very considerably. The author concludes his paper with a suggestion that the prophylaxis against phthisis might be greatly aided by a periodical systematic examination of the population; he states that there are at present 1,200,000 sufferers from phthisis in Germany.—*Brit. Med. Jour.*

## News and Miscellany.

The medical faculty of the State University of Minnesota has decided to add a new course to the medical studies of that institution. As soon as the new term begins the senior class will have to take up the study of cooking. On the catalogue this study will be designated as that of Practical Dietetics. They will have to go into the laboratory and make soups, teas, gravies, farinas, and a host of other dishes for the sick and convalescent. One of the faculty lately said of the new departure that "It is a matter for congratulation that the medical educators are taking account of a need for a scientific study of these questions, as it is a matter for regret that our public-school educators do not yet give this study its proper place and importance in the curriculum of the trades. The time will undoubtedly come when it will be considered of as much consequence that a girl, or even a boy, should be taught the nature of foods and the principles of food preparation as that he or she should deal with the problems of advanced arithmetic or learn the elements of algebra."—*Western Med. and Surg. Gaz.*

**Ratio of Physicians to Population.**—The statistical data bearing upon the ratio between physicians and the general population of Germany, as given out in the new edition of the "Deutsche Medicinal-Kalender," are interesting. We learn that there were 24,873 physicians in the empire during the year 1897; a ratio of 4.5 physicians to 10,000 inhabitants. In 1883 the ratio was 3.33 to 10,000; in 1890 it was 4 to 10,000 inhabitants. Thus 1897 shows a decided increase. Berlin with its 1,750,000 inhabitants has 2,196 physicians, or 1 to 800. Ten years ago there was but one physician to 1,218 inhabitants. This is an increase of almost eighty per cent. In the meantime the population increased but nine per cent. Throughout the entire empire there exists a similar disproportion. When we furthermore learn that during the first years of the last decade there was a slight falling off in the number of medical students, which, however, has since been surely and steadily increasing, we cannot but conclude that there is a most unwholesome over-production of physicians. France has from 26,000 to 27,000 physicians; Paris, with its 2,500,000 inhabitants, 2,500, or one physician to 1,000. England, on the other hand, has but 20,000.—*Med. Rec.*



**T**HE COMPARISON between favorable and unfavorable clinical reports from physicians who have tested . . . . .

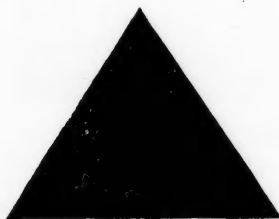
# ESKAY'S Albumenized FOOD

in their practice with Infants and Invalids may properly be shown as below :

No Food is adapted to ALL cases.

## ESKAY'S FOOD

has demonstrated that it is the best nutriment for a larger proportion of cases than any other so far tried by the medical profession.



FAVORABLE.



UNFAVORABLE.

### WE COPY JUST ONE OF THESE REPORTS:

It gives me great pleasure to state that I have largely used Eskay's Albumenized Food in infant feeding, and with very satisfactory results. While as a routine practice I always insist upon the use of cow's milk, modified upon the principles so clearly laid down by Rotch and Holt, many occasions arise in which such modification is impossible, and upon such occasions your Eskay's Food has rendered me valuable service. I have also employed it with success in a few cases of intestinal indigestion in adults.

C. W. MITCHELL, M.D.,

Professor of Diseases of Children, University of Maryland, Baltimore.

### WHY NOT TRY THIS FOOD FOR YOURSELF?

A postal will bring samples and clinical reports free to any physician.

**SMITH, KLINE & FRENCH CO., Manufacturers,**  
PHILADELPHIA, PA.

When writing to advertisers, mention "MEDICAL AND SURGICAL REPORTER."

# JOURNAL CLUB<sup>▲▲▲</sup>

for the convenience of medical men. Peculiar in that a practitioner may at any time subscribe to any periodical desired, and secure it at the lowest club rates by complying with one simple condition.

Cash subscription to the "Medical and Surgical Reporter" must be prepaid for **TWELVE** months from date of the latest Combination Order. Remittance must accompany each order.

## NOTA BENE

- 1.—Outstanding and current subscription accounts must be **PAID IN FULL TO THE DATE OF CLUB ORDER**, because under the JOURNAL CLUB's sole condition, the combination subscription must be **DE NOVO**.
- 2.—Subscriptions (to any periodical) for less than twelve months will not be received in combinations at club rates.
- 3.—Concessions in rates are absolutely conditional upon prepayment in cash.
- 4.—Any number of journals may be sent to one or to separate addresses.

Send list of desired periodicals (any class) for estimate of net saving, by subscription at club rates.

*For particulars, address,*

**MEDICAL AND SURGICAL REPORTER,**  
SUBSCRIPTION DEPARTMENT.

**P. O. BOX 843, PHILADELPHIA, PA.**

When writing to advertisers, mention " **MEDICAL AND SURGICAL REPORTER.**"

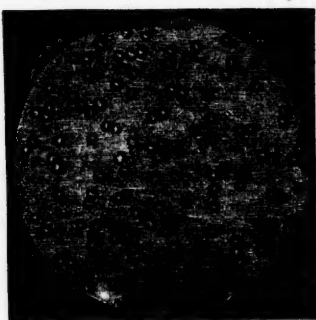
*"The greatest therapeutic discovery of the age, and of the ages, is that where we cannot produce good blood we can introduce it."*

## What is Hæmathotherapy?

A New Thing—and a New Name which, though literally translated (Blood Treatment), may not convey to every one a definite idea. It is a treatment which consists in opposing to a condition of disease the very power good and sufficient Blood—that would naturally prevent it, that would still cure it spontaneously, and that actually does cure it spontaneously, wherever the blood-making work of the system is perfectly efficient; and therefore also *will* cure it, if a deficiency of the vital element be supplied from without, under proper medical treatment.

That Blood is such a power as here described, is an undisputed physiological fact. Its transmission from one animated organism to another, for the purpose of supplying a defect in the latter, is the substance of the Blood Treatment; and How to Do this, in different cases, is the form or description of the same. Blood may be taken from a healthy bullock (arterial blood—elaborated with due scientific skill); or it may be obtained in the well-attested living conserve known as bovine, from any druggist; and may be introduced into the veins of the patient in either of four ways, that may be most suitable to the case: viz.: by the mouth and stomach; by injection, with one-third salt water, high up in the rectum; by hypodermic injection; or by topical application to any accessible lesion

A FILM OF BOVINE:  
Showing the Blood-corpuscles intact.



Micro-photographed  
by Prof. R. R. Andrews, M.D.

### THE CURE OF PULMONARY CONSUMPTION

is one of the latest and most wonderful developments of Blood Power—introduced mainly by the mouth, and sometimes also by spraying bovine into the trachea by an atomizer. Every week of judicious internal blood treatment, with proper medical and hygienic care, has resulted in steady improvement as to all symptoms, with scarcely an instance of check, much less of relapse, until complete apparent cure, and that in the more advanced stages of the disease. As further examples, may be mentioned: Anæmia. Cholera Infantum. Typhoid Fever, Hæmorrhagic Collapse, and many other of the most dangerous and aggravated diseases.

### IN SURGERY: A CHRONIC ULCER,

of no matter how long standing or obstinate and aggravated character, can be cured with certainty—at least, the first instance of failure has yet to be heard of—by constant application of bovine to the wound with proper surgical treatment and sterilization. Such cases are usually cured in from four to six weeks. So of traumatic injuries of all kinds; carbuncles, fistulas, abscesses, and even gangrene

### NUMEROUS CLINICAL REPORTS

of well known Physicians and Hospitals, where the Power of Supplied Blood is constantly relied on as a cardinal factor in the cure of disease and support of surgery, are at the service of every practitioner who desires to keep up with the progress of his profession, and may readily be obtained (including, of course, the technique and subsidiary treatments pursued) by applying to

THE BOVININE COMPANY, 75 West Houston Street, New York.



# **DIVIDE**

## **4**

the price of real stained glass and the result will be the cost of

## **CRYSTOGRAPH**

A perfect imitation of stained glass. Designed in soft, rich colors. Can be applied by a novice to windows of any size or shape with little difficulty.

Write for samples and information, enclosing stamp for reply, to

**THE CRYSTOGRAPH COMPANY,**

1026 Arch Street, PHILADELPHIA

---

## **NEW URINARY CENTRIFUGE.**

**PRICE, \$10.00.**

**Easiest Running, Speediest, Most Durable, Most Compact. Noiseless. Complete with Graduated and Ungraduated Urine Tubes, and Aluminum Shields, preventing breakage. Sputum, Water, and Milk Analysis.**

Booklet, "Compendium for the Centrifuge," Free.

**BAUSCH & LOMB OPTICAL CO.,**

**ROCHESTER, N. Y.**

**NEW YORK CITY,**

**CHICAGO.**

**Address Dept. Bact.**

When writing to advertisers, mention "MEDICAL AND SURGICAL REPORTER."

For 25 Years

## DR. J. FEHR'S COMPOUND TALCUM Baby Powder

has been endorsed, used and recommended by Doctors and Druggists of this country as the original and best

**"Hygienic Dermal Powder."**

Its composition, Silicate of Magnesia, with Carbolic and Salicylic Acids, is well known.

Its properties as a disinfectant, checking fermentation, destroying putrefaction and the micro-organism of disease, makes it a

**Health-Giving Skin Powder, useful alike to Infants and Adults.**

**BEWARE! ALL OTHERS ARE IMITATIONS.**

The original is put up in round paper boxes. Sold by the drug trade generally. Both plain and perfumed.

Established 1858.

**JULIUS FEHR, M.D., Manufacturer,**

**HOBOKEN, N. J.**



From the beginning the schools of instruction succeeded in their object. The equipment of the school was simple. The lecturer carried in one bundle a cloth prepared for chalk, like a blackboard, about 20 feet long and 5 feet wide, ruled and lettered in white to represent a page of the registration book which the election officers had to use, and in another parcel several large sheets of tough paper, showing by broad charcoal strokes a legal ballot and every variation from it that a voter might make. A package of block maps of the ward, a number of copies of the law, a hammer, big-headed tacks, and chalk in coat pockets, a clear head and nerves in good condition, and the lecturer was ready. When he got to the hall he tacked up his blackboard and ballots, put his maps and laws on a table, and announced that he wanted some man in the hall to stand up and be registered. Ten minutes of registering those who stood up, and he went to the ballots, which he talked about for a few minutes more. Then he would say: "Is there anything about the ballot or registration that you do not understand?" The next hour or two hours was a great strain on the teacher. The men who came to these meetings were keen, anxious to know, and practical to the last degree.

They asked questions that had to be answered days.

quickly and authoritatively, and that answer became to them a rule by which a voter would be registered or not or a ballot would be counted or not.—From "The St. Louis Election Schools," by William F. Saunders, in *American Monthly Review of Reviews*.

Aside from fractures of the patella and of the femoral neck, wherein anatomical data for bony union are deficient, we are wont at times to see results far from good in fracture of the lower end of the tibia, of the femoral shaft, of the lower epiphysis of the femur, of the radius, of the elbow and of the clavicle. The use of the cathode ray, where feasible, will doubtless tend to lessen the frequency and extent of post-fracture deformities by making easier the apposition of fragments.—*Ransohoff*.

If a patient is suffering from a bad fracture, and anesthesia is needed for its reduction, chloroform is the best agent, as patients struggle less during its employment, and are less likely to displace the fractured ends after reduction.—*Int. Jour. Surg.*

When writing to advertisers, mention "MEDICAL AND SURGICAL REPORTER."


STANDARD OF THE WORLD.

## Bicycles

**One Price to all Alike.**

We agree to maintain the list prices on Columbia, Hartford and Vedette bicycles published in our 1898 Catalogue, throughout the season ending October 1st, 1898.

Columbia Models 50 and 51, Bevel-Gear Chainless,	\$125
" " 47 and 48, Tandems, - - -	125
" " 45, 46 and 49, Chain Wheels, -	75
Hartford Patterns, 7 and 8, - - -	50
Vedette Patterns, 15 and 16, - - -	40
" " 17 and 18, - - -	35

**POPE MFG. CO., - - - Hartford, Conn**

Catalogue free from any Columbia dealer, or by mail for one 2-cent stamp.

## Always Specify PLANTEN'S Perloids of Sandal Oil

Improved French "Perles."

**Cheaper and Better than the Imported.**

No. 421 A, 5 minims size, 40 in vial, per doz.,	\$4.75
No. 421 B, " " " 80 " "	9.00
No. 421 C, " " " 100 " "	10.20

### SANDAL OIL CAPSULES.

No. 53 A, 10 minim size, 12 in box, per doz.,	\$2.25
No. 53, " " " 24 " "	4.25
No. 54, " " " 36 " "	6.25
No. 54 C, " " " 100 " "	15.00

A trial bottle or dozen sent prepaid on receipt of list price. Send for detailed formula list.

**H. PLANTEN & SON,**

Established 1836.

New York.

We make 400 Kinds of Filled and Empty Capsules.  
Encapsulating Physicians' Private Formulas a Specialty.

When writing to advertisers, mention "MEDICAL AND SURGICAL REPORTER."

## "Vichefizz"

**Safe and Positive Cure  
for Headache.**

Composed of the  
following ingredients:

Caffein (Alk.)	Acetanilid.	Salol.
Sodii Bicarb.	Acid Tartar.	

Made only by

**Vichefizz Chemical  
and Specialty Co.  
PHILADELPHIA.**

## Do you need Printing?

We are printing quite a number of publications for Churches, Sabbath Schools and Colleges, and doing it satisfactorily, too. So our patrons inform us. Kindly give us an opportunity to estimate on your printing, and we will demonstrate our ability to serve you equally well.

Let us hear from you.

**REPORT PUBLISHING CO., LTD.  
LEBANON, PA.**



# LISTERINE

THE STANDARD  
ANTISEPTIC.

LISTERINE is to make and maintain surgical cleanliness in the antiseptic and prophylactic treatment and care of all parts of the human body.

LISTERINE is of accurately determined and uniform antiseptic power, and of positive originality.

LISTERINE is kept in stock by all worthy pharmacists everywhere.

LISTERINE is taken as the standard of antiseptic preparations: The imitators all say, "It is something like LISTERINE."

## Lambert's Lithiated Hydrangea.

A valuable Renal Alternative and Anti-Lithic agent of marked service in the treatment of Cystitis, Gout, Rheumatism, and diseases of the Uric Diathesis generally.

Descriptive Literature upon Application.

LAMBERT PHARMACAL COMPANY.  
ST. LOUIS.

### THERE ARE OTHERS

These are specimen single combinations of

## Journal Club Rates

Medical and Surgical Reporter.

\$3.00 and

	Publishers' Price.	Combination Offer.
Harper's Magazine,	\$4.00	\$5.75
Harper's Weekly,	4.00	5.75
Harper's Bazaar,	4.00	5.75
Harper's Round Table,	2.00	4.00
Scribner's Magazine,	3.00	5.00
Century Magazine,	4.00	6.00
St. Nicholas,	3.00	5.00
Peterson's Magazine,	1.00	3.25
McClure's Magazine,	1.00	3.30

Quotations for any combinations at club rates will be furnished upon application, specifying the journals required.

Address Subscription Department,

Medical and Surgical Reporter,

P. O. Box 343.

PHILADELPHIA, PA.

When writing to advertisers, mention "MEDICAL AND SURGICAL REPORTER."

## SVAPNIA

OR

## PURIFIED OPIUM

FOR PHYSICIANS' USE ONLY.

Contains the Anodyne and Soporific Alkaloids, Codeia, Narceia and Morphia. Excludes the Poisonous and Convulsive Alkaloids, Thebaine, Narcotine, and Papaverine.

SVAPNIA has been steadily increasing in use for over twenty years, and whenever used has given great satisfaction.

TO PHYSICIANS OF REPUTE, not already acquainted with its merits, samples will be mailed on application.

SVAPNIA is made to conform to a uniform standard of Opium of Ten per cent. Morphia strength.

JOHN FARR, Manufacturing Chemist, New York.

C. N. CRITTENTON, Gen'l Agent, 115 Fulton St., N. Y.

To whom all orders for samples must be addressed.

SVAPNIA IS FOR SALE BY DRUGGISTS GENERALLY.

STRICTLY PROFESSIONAL.

# HYDROLEINE

(HYDRATED OIL)

Is a purely scientific preparation of Cod Liver Oil for the treatment of Incipient Consumption, Scrofula, Rickets, Bronchitis, Whooping Cough, and all wasting diseases.

**FORMULA**—Each Dose Contains: Pure Norwegian Cod Liver Oil, 80 m. (drops), Distilled Water 35 m. (drops), Soluble Pancreatin, 5 grains, Soda,  $\frac{1}{2}$  grain, Salicylic Acid,  $\frac{1}{4}$  grain.

**DOSE**—Two teaspoonfuls alone or mixed with twice quantity of water, to be taken after each meal.

**HYDROLEINE** is a pancreatized Cod Liver Oil preparation of pure Norwegian Cod Liver Oil (from Lofoten), that is prepared as the direct result of a long series of physiological experiments, conducted by H. C. Bartlett, Ph.D., F. C. S., and G. Overend Drewry, M.D., M. C. R. S., and encouraged with many practical suggestions by Bence Jones and Baron Liebig.

**HYDROLEINE** is based on sound scientific principles; it is easily digested and assimilated, without producing eructations. Appetite is increased, and that, so far from possessing the unpleasant taste of Cod Liver Oil and its emulsions, HYDROLEINE is palatable as milk, and pleasant. The formula is well known and the preparation has received the endorsement of physicians throughout the United States. It is sought to introduce HYDROLEINE exclusively on its merits, and for that reason the profession is appealed to only through the columns of medical journals.

SOLD BY DRUGGISTS GENERALLY.

The Charles N. Crittenton Co. Sole agents for the United States. New York.

## Gray's Glycerine Tonic Comp.

(Glycerine, Sherry Wine, Gentian, Taraxacum, Phosphoric Acid, Carminatives.)

Formula DR. JOHN P. GRAY.

Neutralizes Acidity of the stomach and checks fermentation.

Promotes appetite, increases assimilation and does not constipate.

Indicated in Phthisis, Bronchitis, Anaemia, Malnutrition, Melancholia, Nervous Prostration, Catarrhal Conditions, General Malaise.

THE PURDUE FREDERICK CO.,

Write for Samples.

No. 52 West Broadway, New York.

When writing to advertisers, mention "MEDICAL AND SURGICAL REPORTER."

## "A BOON TO HUMANITY."

# RESINOL

(R: Unguentum Resinol.)

An Absolutely Reliable...

### Anti-Pruritic, Local Antipyretic, Emollient and Skin Nutrient.

RESINOL, by promptly dissipating capillary hyperemia, has established itself as the best local application in Erysipelas and other forms of Dermatitis, and as the remedy par excellence in all eruptions and irritations of the skin, as ECZEMA, HERPES, ACNE, PSORIASIS, SEBORRHEA, TINEA CAPITIS, INTERTRIGO, SUNBURN, ERUPTIONS OF POISON OAK, BURNS AND SCALDS, ETC. Stops the itching of PRURITIS ANI OR VULVÆ, ITCHING PILES, MARGINAL ECZEMA, ETC.; instantaneously and immediately subdues the fiery inflammation of VULVITIS, BALANITIS, ETC.

RESINOL is a harmless antiseptic and a true skin anesthetic, absolutely non-irritant and non-ionic (free from lead, mercury or cocaine), can be applied to mucous, excoriated or denuded surfaces of any extent at any age without fear of untoward results, and is not contra-indicated by any internal medication that may be deemed advisable.

#### OPINIONS FROM THE PROFESSION.

From H. S. CUNNINGHAM, M.D., Prof. of Gynecology and Clin. Dis. of Women, Amer. Med. Col., Indianapolis, Ind.: "I have been delighted with the action of *Resinol* in Pruritus Vulvæ, Tinea Capitis, etc."

From F. G. WELCH, M.D., New York City: "For Senile Eczema, especially with Pruritus, *Resinol* is the best application I have found in 25 years' practice."

From W. J. BRANDT, M.D., Brooklyn, N. Y.: "Surely in your preparation, *Resinol*, you have a most wonderful anti-pruritic remedy. I have used it upon myself, and my relief has been complete and absolute."

From E. F. HOYT, M.D., Specialist, Rectal Diseases, New York City: "*Resinol* is one of the best local antiphlogistic remedies I have ever used. It subdues the intense inflammation in Strangulated Hemorrhoids in a very short time."

From H. E. DWIGHT, M.D., Philadelphia, Pa.: "In the various skin affections arising from high temperature in mills where operatives are exposed, I have found *Resinol* admirable. I have also used it with good results in Chafing, Scrotal, Eczema and Vulvitis."

From ISAAC P. ALGER, M.D., Coldwater, Mich.: "I consider *Resinol* a grand thing for cutaneous congestion and inflammation."

From W. S. ROFE, A.M., M.D., Anita, Iowa: "As an ideal sedative *Resinol* has no equal, and in all eruptions of the skin I shall always use it in preference to anything else."

From ADVIL MCLEAN, M.D., McCall, S.C.: "It is decidedly the best anti-pruritic remedy I have ever used."

From W. A. JEMISON, M.D., Eminence, Ky.: "*Resinol* is the best local application for Eczema I have ever used."

RESINOL is put up in ONE OUNCE jars at 50 cents each, and can be obtained at any drug store.

SAMPLE sent FREE on application, or ONE regular-size jar for trial on receipt of 25 cents.

**RESINOL CHEMICAL CO.,** **Baltimore, Md.**

When writing to advertisers, mention "MEDICAL AND SURGICAL REPORTER."



**These Essentials for the Perfect Emulsion of Cod Liver Oil,**  
*Fully Fifty per cent. Choicest Norway Oil,*  
*Combination of the Oil with the Soluble Wheat Phosphates,*  
*Emulsionizing of the Oil by Pancreatine,*  
*Minute Sub-Division of the Oil Globules, as in Milk,*  
*Acid Reaction—TO PRECLUDE SAPONIFICATION,*  
*Complete Miscibility in Water, Milk, or other Fluid,*  
**are fully met in the** \_\_\_\_\_ **Palatability—Permanency.**

## PHILLIPS' EMULSION

It furnishes at once those elements of nutrition to counteract systematic waste—the OIL supplying the FAT, the PHOSPHATES, FOOD for BLOOD, BRAIN and NERVE—not exhibited in any other preparation.

Prescribe PHILLIPS'.

DOCTOR :—If you have sufficient confidence in the

### PHILLIPS' PHOSPHO-MURIATE OF QUININE, COMPOUND,

to prescribe it, you owe it to your patient, yourself—and us to distinctly specify PHILLIPS', and to see that the patient gets it.

This compound of the Soluble Wheat Phosphates, with Muriate of Quinine, Iron and Strychnia, that will not disappoint where an easily appropriated general tonic is desired, has proven itself one of the most thoroughly reliable Alterato-Constructives to be had.

The substitution and imitation of this standard, reputable preparation are increasing, and professional co-operation is indispensable if the evil is to be checked.

PHILLIPS' DIGESTIBLE COCOA.  
 PHILLIPS' WHEAT PHOSPHATES.  
 PHILLIPS' MILK OF MAGNESIA.

**THE CHAS. H. PHILLIPS CHEMICAL CO.**

77 PINE STREET, NEW YORK.

*"Borolyptol"*

### ITS BACTERIOLOGY

The crucial test of the efficacy of an antiseptic fluid is the bacteriological one. When we state that BOROLYPTOL is equal in germicidal potency to a 1-1000 solution of Corrosive Sublimate without the irritant or toxic properties of the latter drug, we base our claim upon the results of careful laboratory experimentation with the different varieties of germ life. We have full, complete and conclusive reports from the bacteriologists of the N. Y. Post-Graduate Medical School, City Hospital at Boston, and the Garfield Memorial Hospital at Washington.

These will be sent upon request.

BOROLYPTOL is palatable, fragrant, and slightly astringent. It does not stain linen or clothes. It should be employed in Gynecology and Obstetrics, Rhino-Laryngology, Surgery and Dentistry. Also internally in the treatment of Typhoid Fever, and in the gastro-intestinal disorders of children.  
 Send for "Expert Evidence."

**THE PALISADE M'F'G. CO.,  
YONKERS, N. Y.**

When writing to advertisers, mention "MEDICAL AND SURGICAL REPORTER."